

# MASSACHUSETTS PLOUGHMAN

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MASSACHUSETTS PLOUGHMAN  
NEW ENGLAND  
JOURNAL OF  
AGRICULTURE

VOL LXII. - NO. 26

BOSTON, MASS., SATURDAY, MARCH 21 1903

WHOLE NO. 3190

MASSACHUSETTS PLOUGHMAN  
Official Organ of the N. E. Agricultural Society.

MASSACHUSETTS PLOUGHMAN PUB. CO.  
Publishers and Proprietors.  
ISSUED WEEKLY AT  
NO. 5 STATE STREET,  
Boston, Mass.

TERMS:  
\$2.00 per annum, in advance. \$2.50 if not paid in advance. Postage free. Single copies 5 cents.  
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Correspondence from practical farmers, giving the results of their experience, is solicited. Letters should be signed with the writer's real name, in full, which will be printed or not, as the writer may wish.  
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## A Study of New Vegetables.

The seed catalogues are out now. Each one has its new varieties and novelties. Not all of these would be valuable to us, but there is no doubt but some of them would be. That, of course, we must find out for ourselves.

Something very fascinating to me is included in the growth of vegetables. It is hard work and there may be much to bother and perplex, but I wouldn't give two cents for a profession in which, when a man has followed it for a time, he knows all there is to know, and becomes in reality like a machine.

We must love our work if we would be contented and if we would get the most out of it. Experimenting and trying new plants and seeds will increase our interest. Our success is not measured entirely by the amount of money we make, but in part by the pleasure and enjoyment we get out of it. The varieties that I shall mention are not all new, but are those which after trial seem worthy of future use.

In beans we have Burpee's new stringless green pod, the best green bush bean we have ever tried. It is very hardy, even successfully withstanding frosts which destroy the Early Six Weeks. It is very hardy and wonderfully productive. The pods are a rich green color, meaty, broad, and entirely stringless, even when fully matured. We tried this variety for the first time last year and were so well pleased with it that we shall try it again. Kentucky Wonder is a green pole bean. The pods of this variety are seven or more inches long, very meaty and stringless when young. If the pods are kept picked the vines will continue to bear throughout the season. Golden Cluster is a wax pole bean. The pods are of good length, broad and flat. They are of good quality, being quite meaty and crisp. Worcester pole, a shell bean, is valuable on account of its size and high color and also for its keeping qualities both on the pole and after being picked. It is a quick seller and will command higher prices than the common sorts.

In cabbage, Solid South, Hollander and Hundredweight are fine varieties that are not very well known. They are sure headers and also very solid. Some heads grow to immense size. The hardest and heaviest for a medium-sized head is Danish Ballhead. This is a fine variety for late and is especially valuable for small families on account of its size. It can be planted closer together than the larger varieties because of its compact growth. The heads seldom burst in the field and are fine keepers.

For celery we have not found a variety that will take the place of White Plume, which is a white, crisp celery, when properly grown and bleached. We have tried both Golden Self Bleaching and Golden Heart, but in our soil a large percent of them grow soft. In this respect Paris Golden is much better and will probably take their place with us. For winter and late use Giant Pascal, on account of its keeping qualities and its thick, crisp stalks, takes the lead.

In beets for early the Early Eclipse or the Egyptian; for general crop, the Dark Red Detroit. The latter has a good shape and color and is the best we have found so far. For use in salads and for pickling, the Wonderful or New York Wonder is a curly-leaved, loose-headed lettuce which is fine when a strictly head lettuce is not desired. For head variety, the seeded Tennis Ball is first, closely followed by Deacon lettuce. For forcing glass we recommend Rawson's hot-house lettuce. This is very large and a sure header and not liable to rot in the heart.

For early and late corn, Cory and Evergreen are medium Potter's Excelior, which is every one prefers to Evergreen because it is so sweet. In cauliflower, Burpee's Early and Burpee's Dry Weather are equal, if not surpass, the old Snowball. The Best Early is extra early and certain to produce fine heads. The latter are very solid and weigh more than other heads of equal size. The latter resembles the Best Early, but is a week later in heading. It is especially adapted for growing in dry land.

Members White Spine seems to be the best for general purposes. Both Boston and White Spine are valuable for pickling. The best we have found in peas is the Clipper. It is probably the earliest, and can be finished in two pickings. Its height is medium, and the peas are as sweet if picked at the right time. Take everything into consideration, it is the best pea in its class for private or for market purpose. We have grown Victoria spinach for general crop and have found it quite good. It has not been satisfactory for spring and summer, but for fall it

seems to be all right. For growing in hot weather, New Zealand spinach takes the place of all other sorts, as the heat has no bad effects on it. This is not a spinach of the ordinary kind, but a branching sort, the tips of the branches being used. The more it is picked the more it branches, in a short time covering quite a large surface. The seeds take from three to four weeks to germinate, but when they do start they grow very quickly. The old Hubbard still remains the standby in squashes. Bay State is a great favorite with us. Golden Hubbard is a fine variety, ripening in a shorter time than the common Hubbard.

The earliest tomato we have found is Spark's Earliana. For late use it isn't very good, as it is a foliage to protect the fruit from the sun. Because of this it doesn't ripen properly. Notwithstanding this fault it is a valuable sort because of its earliness. Another fine variety is Burpee's Quarter Century, growing a good deal like Dwarf

fence a main branch may be trimmed in each direction, and all the side branches just back to within one or two of the main branch, but cut the main branch off, too, if very long.

"Looks as if that would pretty nearly spoil these big vines."

"Yes, but remember it's the new growth that bears the fruit. No salable grapes come from unpruned vines. As for the bare space, the new growth will fill it up before the end of the season."

"And how about the vines that are on the buildings and the ground?"

"Cut them back to the main branches, but leave a pair of side branches every two or three feet from which the bearing wood may start. The simplest plan for vines on the ground is to cut back to the main trunk, leaving a pair of branches at the top with a dozen buds on each branch, so that what is left of the vine will be T shape and three or four feet high. Then put up a post of wood or iron four feet above the ground, with a

"Looking forward in the present century," said Secretary Stockwell, "we see a wonderful change; let me picture it. We see the fruits of summer grown in January in our own greenhouses more profitable than in their proper season. We see our own dependent population supplied with every luxury by New England enterprise on New England soil. We see the farmer taking his old stand as a leader in all good enterprises. We see his sons, educated and strong, taking their rightful place and exerting their old-time influence—the strength of the hills, the backbone of the cities. We see the electric car speeding its way from town to town and from village to village, carrying the child to the larger and better schools and giving free mail delivery to the homes of the country as well as to the city. We see equal taxation resting like the atmosphere on rich and poor alike—every man according to his ability. We see the trusts that hold the farmers in their iron grasp destroyed or made to subserve right-

trick if you have a manure cellar. A fine practice is to add a little kaim to the bedding daily. It will gather up the valuable gases of the urine and manure, add its own potash, and enhance the cleanliness of the stable and the value of the manure pile. Don't be afraid to use sawdust liberally under your cattle. Such mechanical agent as well as absorbent will pulverize the heap while you sleep.

So careful for you will haul out your well-filled carts of manure of such a grade next spring that will fill your soul with hope of an abundant harvest and increased permanent fertility of your fields. It is surprising how much a man can accomplish in a day when he sets out to make an improvement of such a nature.

Leighton's Corners, N. H. A. J. HAMM.

A Lamb Feeder. If we have been fortunate to have a great many more lambs than ewes, and some are

are apparently frozen, but will revive if brought into a warm room. House flies hide in cracks and crevices in the house, and mosquitoes are sometimes found in similar locations, usually near a water supply.

Many bugs and sometimes species of the butterfly winter in hollow trees, logs and such places. The cocoons of many large moths and butterflies may be seen attached to twigs and shrubs. The cocoon of the Cecropia moth is often more than four inches long, silvery gray in color, which has a leathery outside and silky hair within, and is proof against cold and wet.

Grasshoppers, katydids, many moths and a great number of other insects pass the winter in the egg stage, the eggs being laid in the ground in cracks of fence posts, or in logs and other slightly sheltered locations. The gypsy moth, the pest of eastern Massachusetts, lays its eggs upon the trunks and branches of trees. Some trees, until examined closely, seem to have been spotted with mud. The moth eggs and moth have great vitality and will stand severe weather. A tree covered as described, will, unless the insects are destroyed, be entirely bare of leaves in three or four days after the moths get to work.

What the Grange has Done.

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On sandy loam I like shallow plowing, but one must be governed by circumstances, which are too numerous to mention here, in deciding whether to plow deep or shallow. The condition to aim at is to have the soil firm enough to permit of the subsoil water passing readily upwards through the land, and not so firm but what the roots of plants can easily penetrate it.—Prof. S. B. Green, Minnesota.

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Many breeders weaken their stock by breeding too young animals. It is claimed on good authority that pigs from mature parents are larger and better stock. The most careful breeders do not allow sows to bear too young, until they are thirteen or fourteen months old. There is no question but that many strains of swine have been weakened by incorrect methods of breeding.

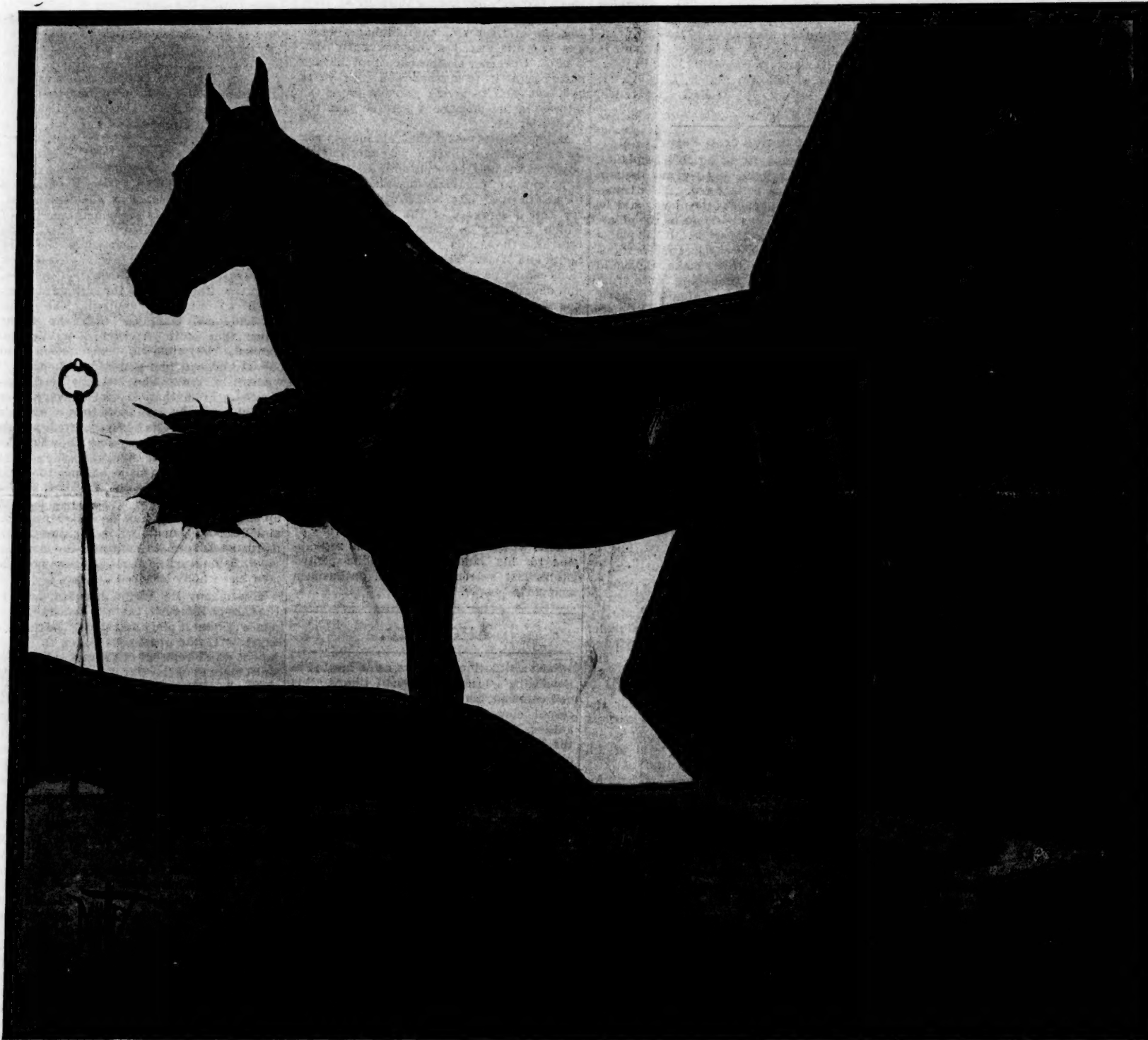
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Why is the sulky or riding plow not used more freely in the East? Last season I used one on my hard and somewhat rocky soil with perfect success. It will do as much work as any plow, needs only a good average team, and is almost as easy for the plowman as a mowing machine. My plow is of the double-share or right-and-left-hand type adapted for side hills or going back and forth at one side of a field, making no dead furrows through the middle. It costs as much as a mower, which is the main thing preventing its common use, but which has been paid for by outside plowing, which would have been too hard for me with a common plow. No repairs have been needed yet.

S. I. H. Middlesex County, Ct.



THE NOTED TROTTER SIRE, ALMONT. FOALED IN 1864. DIED JULY 4, 1884.

Champion, but being earlier, more productive and a better keeper. For all other purposes the Matchless seems to be the best with us.

The Martynia is quite ornamental in growth. The pods are picked while young and tender and are picked while young and tender before any woody fibre is formed. They are used in making soups. Satisfy or vegetable oyster, so called because it resembles the oyster in flavor and may take its place, is a fine vegetable to grow for winter when other vegetables are scarce.

HERBERT W. TAYLOR.  
Middlesex County, Mass.

## The Farm Grape-Vines.

"What shall I do with these grape-vines, neighbor? They are all over the walls and fences."

"Some on the ground and sides of the buildings, too," I assented. "Every vine has to be cut down; bunches are poor and full of gaps; the grapes don't all ripen; isn't that so?"

"Yes, but I don't know just what to do, so I have neglected them, just as many farmers do."

"Pruning them the wood and thus thinning the fruit, so that what is left has a chance. The fact to bear in mind is that the fruit is produced on the new growth, not on that of the year before. So you can cut back about all the old growth and still get all the fruit the vines can ripen in a first-class manner. Cut your old vines right back to a skeleton, with just enough wood left for the new growth to start from in such a way that it will be distributed well over the part you wish to cover. On a stone wall or rail

four-foot cross arm over the top. Tie the T-shaped vine to your T-shaped trellis. The branches will send out the fruiting shoots."

"That looks simple. And what shall I do the next year?"

"Just the same thing, saving only enough of this year's growth for the side arms. Don't be afraid to cut right back every year. When the vine gets old and stubby about the main trunk, use fresh growth from the trunk or from the ground, if there are fresh sprouts available."

"Now here is a vine which I wanted to make a lot of wood and leaves to cover the back porch, so instead of cutting out much of the wood, why can't I thin the fruit directly by picking off half the bunches as soon as they show?"

"That will answer the main purpose to a certain extent, but in a few years there will be such a tangle that but little fruit will set, and what there is will not ripen well. If I were you," I concluded, "I would put some choice vines in an open space where you can get at them to cultivate and prune and manure, put up post or wire trellises, and give the grapes a chance to show you what fancy fruit is like. You wouldn't bother with these scattered, neglected vines any longer, I promise you."

Massachusetts. G. B. FISKE.

## The Farming of the Future.

A very cheerful view of New England agriculture was expressed by J. W. Stockwell of the State board in last Saturday's address before the Massachusetts Horticultural Society. The secretary's recent predictions have a solid foundation in the progress of agricultural education and the growth of intensive farming.

ous ends for the benefit of all. We see the bright day when arbitration shall settle the differences of nations and war's costly tribute shall cease. We see the home in which all comforts are found and all graces abound; its approaches lines of beauty, its crown of blessing the love and contentment that dwell therein. We see the wealth of character and honesty of purpose and life more honored than gold, and honest industry more prized than the indulgence of wealth. We see all this, not as a mirage or a far-distant view, but growing nearer and nearer and never hastening so rapidly to its accomplishment as today."

Care of Barn Manure.

Riding past a neighbor's farm barn the other day, I saw his man step to the door and with a broad sweep of his shovel spread a lift of manure from the steep over the broad side of a heap, which had accumulated from a succession of similar movements, while the coarser lumps rolled away to the base of the pile to dry and blow away or get wet and to dry up when the sun dispensed sufficient heat. How many farmers will do the same thing all winter? Just like depositing your savings in an insolvent bank.

If out of the question to put in a basement, the following is available now at once: Set some posts well in the ground so as to make a pen ten or twelve feet wide and the length of your heap, plank or board it from close to the ground up, on the inside of the posts, likewise the ends. Level off the manure and keep the edges as high as the centre. Better yet, put a roof over the pen, line it to the roof, put in a window, and keep there a couple of shotes to each twenty feet in length. Do this last pig

not supplied with milk, you can aid the ewe by feeding the lamb cow's milk, good Jersey milk, as I feed the young lambs, so as to push them right along and get them on the market as early as possible.

I have used for the past few years what I call a lamb feeder. It is a tin pail with a tight fitting cover, that will hold one gallon of milk. On one side are three sprouts soldered on near the bottom of the pail and extending outward as high as the top of the pail, made so that the rubber nipples can be put on. By feeding them a few times from a bottle, which is more convenient to teach them at first, they quickly learn to be on hand for their milk when they see you coming with the pail. Give them all they will take of this Jersey milk every morning and evening. By feeding in this way they get no setback, but grow equal to the best ones.

Corliss, Wis. R. E. ROBERTS.

## Insects and Cold Weather.

Observers often wonder what becomes of the vast numbers of insects and eggs which are alive at the close of the warm season. It is evident that some of them must live to preserve the species, but in what manner do they survive? What becomes of the majority? Millions of eggs and young are destroyed by chickadees and nut-hatches, and vast numbers are eaten by wood mice, squirrels and parasite insects. A few are successful in protecting themselves.

Many species of the beetle live under the loose bark of the trees, in decaying logs and similar substances. Click beetles burrow holes below the surface of the soil. Ants live in elaborate burrows beneath the surface or winter inside the trunks of trees which are out in winter. When found they

are apparently frozen, but will revive if brought into a warm room. House flies hide in cracks and crevices in the house, and mosquitoes are sometimes found in similar locations, usually near a water supply.

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### Butter Firm, Cheese Steady.

The supply of the better grades is moderate, and the Boston market, although not very active, has been working up to sympathy with advanced New York and Western quotations. Most dealers report low grades very hard to sell, and trade dull in everything but fresh creamery and fancy hard stock.

George A. Colman: "The situation is a little better for top grades, but lower grades remain unchanged. I have bought for export some lots of low-grade butter at 15 cents and 16 cents, and for domestic use fancy hard stock at 20 cents. The situation is a very little better on fancy grades; others are dull as ever."

Chapin & Adams: "Prices have improved about one-half cent per pound for fancy creamery. There is more demand for storage, many lots changing hands. Not much doing in other grades. The situation has somewhat improved as compared to two weeks ago."

L. Stone & Co.: "Butter is selling slow, and prices unsettled. Dealers are holding off, expecting a decline with the advance of the weather. Dealers are willing to sell at low quotations to force the market. Market is firm on eggs."

Receipts at New York, Wednesday, were 6500 packages. Trade is fairly satisfactory in extra creamery at 28 cents, or even a fraction more for high-quality lots. Storage creamery is also doing pretty well at 25 to 26 cents. Low grades are quiet, but doing a little better than formerly in point of sales. Exporters at Boston and New York have been making a few shipments of late.

Cheese receipts at New York, Wednesday, 1800 boxes. Demand is fairly active, although most sales are in small lots. Top quotations of 16 cents show the firmness of the situation. Colored cheese is selling more freely than white. Slices are in light supply and hold at full quotations. The situation at Boston is unchanged, supplies being light and quotations steady.

Receipts at New York for the week 11,750 packages butter, 1000 packages cheese, 12,000 cases eggs, and at Boston 10,000 packages butter, 1500 boxes cheese (includes 650 boxes for export), 14,000 cases eggs. Last year the figures at New York for the week were 10,000 packages butter, 1000 packages cheese and 10,000 cases eggs, and at Boston, 10,000 packages butter, 1000 boxes cheese (includes 7700 boxes for export), 10,000 cases eggs.

### Vegetables and Fruit.

Onions are in over-supply in Boston and New York. Some lots have been sold at 20 to 25 cents a bushel. Onion grades, however, hold firm, but the bulk of holders can be sold only by forcing the market. Onion growers who stored last fall hoping for an advance by this time have been disappointed. The recent warm weather caught a number of shipments going out, causing them to become soft and unsalable. It is estimated that in the onion district of New York State there are fully fifty thousand bushels in storage, with the market no stronger than a month ago. The situation is something like that in the apple market, both being weak as a season with prices slightly higher.

Potatoes show some signs of rewarding the patient holder, receipts being light and prices moving up a peg or two. The top quotation for earlows in Boston is 30 cents, which is for fancy Atwood Green Mountains. Good lots from New York bring 70 cents. Other old vegetables hold about steady.

Southern truck is in moderate supply with some lines higher. Kale and spinach are nearly of poor quality; 170 boxes spinach arrived by boat Tuesday. String beans are scarce. Southern asparagus begins to arrive now just as the hot-house product is giving out. The stock and bunches are larger than the hot-house grown and bring 12.50 to 15.00 a bunch. Romaine and escarole now in Boston market are said to be imported from Europe. South African plums are still on the market at 81 per dozen.

Hot-house products barely hold their own, cucumbers being somewhat lower and tomatoes having dropped slightly. Lettuce holds nearly steady in Boston, but quotes lower in New York.

Southern strawberries have been plenty, but of such good quality that prices have held about steady. Oranges from California have been plenty and cheap, but Florida are about done for the season. Cranberries are scarce and higher, and the price has cut the demand to very narrow limits.

Receipts at Boston for the week: Apples, 23,000 barrels; cranberries, 205 barrels; strawberries, eighty-six rebs.; potatoes, 133 cars, 731 bushels; sweet potatoes, 531 barrels; onions, 1225 barrels.

### Provision Markets Firm.

Pork prices are higher than ever, with demand active. Receipts from the West continue rather light. The kill at Boston last week was twenty-three thousand, compared with twenty-four thousand the week before and twenty-five thousand last year at the corresponding date. The export trade from Boston shows some increase, but not to a marked degree, prices being too high for foreign buyers. Total Western packing 425,000, compared with 435,000 the preceding week and 455,000 two weeks ago, as given by the Cincinnati Price Current. For corresponding time last year the number was 415,000 and two years ago five hundred thousand. The quality is somewhat irregular, mainly fair to good. Prices are higher; the average for prominent markets is about 87.10 per one hundred pounds, compared with 86.05 a year ago, 87.05 two weeks ago, 86.15 a year ago and 85.50 two years ago.

Fresh beef is in full supply and prices changed but slightly. Only a few fancy steers bring above seven cents. Beef arrivals for the week are again very large, being 152 cars for Boston and 83 cars for export, a total of 235 cars; preceding week, 150 cars for Boston and 69 cars for export, a total of 229 cars; same week a year ago, 140 cars for Boston and 75 cars for export, a total of 215 cars.

The live-stock movement at the five most prominent markets of the West may be taken as an index of the conditions in that section of the country. For January, 1903, a total of 2,724,000 head of cattle, calves, hogs and sheep was reported, in contrast with 2,947,031 head for January, 1902, and 2,780,209 head for January, 1901. A continuous increase has occurred in these three years in the case of the receipts of cattle, calves and sheep, but a very marked falling off in the case of hogs. At Chicago, Kansas City, Omaha, St. Louis and St. Joseph the combined receipts of cattle in the first month of this year were 622,122 head, compared with 590,011 head in January, 1902, and 622,016 head in January, 1901. Receipts of calves were respectively 22,094 head, 17,500 head and 12,432 head; not including January receipts of sheep were, in 1903, 69,411; in 1902, 69,000 head. Receipts of hogs at Omaha and St. Joseph in January, 1903, were 1,408,

555 head. The much lighter figures of 1,044,535 head for January, 1902, and 1,529,065 head for January, 1901, show how much of a decline has occurred in this feature of the live-stock trade. Nevertheless, the traffic receipts for January for three successive years, beginning with 1901, have not but little, the number of cars arriving being respectively 15,061 cars, 15,225 cars and 15,200 cars.

The feeder movement, including stock driven to the country, for the corresponding period shows an opposite tendency, so far as Kansas City and St. Joseph are concerned. The combined feeder movement of these two markets in January, 1903, included 96,906 head, compared with 26,348 head in January, 1902, and 62,295 head in 1901.

### Apple Market Weak.

Receipts of apples have been very heavy at the large Eastern markets the past week, and sales are made with difficulty. The approach of warm weather has somewhat discouraged the hopes of holders, and they have been forcing their fruit upon the market, preventing the rise that would naturally occur towards the end of the season for fruit wine and other medium-keeping varieties.

Another bad feature results from the slump in the British market, causing the profitable outlet in that direction and causing exporters to unload their holdings on the local market. This is the situation in Boston, and the average of prices is lower, if anything, than prevailed last week. Nothing but fancy Maine or cold-storage fruit will exceed 82, and there is a big supply of country arrivals which have been stored in cellars, and are poor to ordinary in condition. For such lots dealers are very glad to get \$1.50 and will accept \$1.25 for the poorest lots. Others which are of good size and condition bring \$1.75, and if bright, high colored and uniform \$2. But the great bulk of actual sales, cold-storage stock excepted, are at \$1.25 and \$1.50. Receipts are not yet in full demand. Prices range about as for last week.

Said G. W. Mead: "The commercial buyers had a wrong idea of the amount of apples in the country at the beginning of the season and put prices too high. If a large part of the crop had been worked out at \$1 to \$1.25 a barrel, the growers would have been better off than to hold it till now and get only \$1.50 or \$2 at the most after handling, storing, sorting and standing the shrinkage. If this had been done, the rest of the crop would bring a good price at this time."

Liverpool advice report the apple market the first of the week as being poor and depressed on account of large arrivals. Exporters of the week report through Lawrence & Co., Baltimore at \$1.75 to \$3.15, with a few at \$3.25. Canadian apples range from \$2.15 to \$3.18. Another Boston exporter says that Liverpool has sagged off a shilling or two since last week, and many lots are arriving badly out of order and clogging the market. Baltimore at fair demand, netting in Boston \$2.50 for cold-storage stock. Receipts range from \$1.50 to \$2.50 net in Boston.

Apple shipments from Boston for the week were 17,000 barrels, all to Liverpool and Glasgow. Total from Boston since the season opened 76,004, compared with 141,000 in 1901-02 and 90,000 in 1900-01. The shipments from Boston alone this season have about equaled the shipment from all ports last season.

In a special report forwarded March 11, G. R. Meeker & Co., New York, say: "We think our prediction hitherto expressed regarding the Liverpool market is beginning to prove itself, and in referring to the London market, we think it will remain tolerably steady, unless shipments increase and Liverpool dealers take up the idea of forwarding part of their surplus stock to that center. The same remarks will apply to the Scotch markets, although we consider any decided retrograde movement there to be out of sight at the present writing, and anticipate a fairly steady market. Any shrinkage in prices there will be due to the fruit arriving out of condition, which is hardly a fair criterion as to the quality of the fruit, as good fruit will do well. The shipments for the week ending March 7, at the present writing, from all points, are reported to be approximately: To Liverpool 25,000, London 12,000, Glasgow 10,000, various 15,000."

"The Tasmanian apple crop is reported to be in the neighborhood of three hundred thousand cases, with shipments spread over about nineteen weeks, at an average of about sixteen thousand boxes weekly. The first shipment, consisting of fourteen thousand cases, left Tasmania Feb. 13, and is due to arrive in London during the first week in April. These exports will be considerably larger than last year, and some sources of information estimate them as high as four hundred thousand. According to present advice the Australian crop is also reported large. The above information should be taken into consideration by American shippers, especially those inclined to be slow in sending forward fruit intended for export."

### The Market Grades of Butter.

Recent inquiry concerning the terms applied to the various grades of butter, shows that the exact meaning of "extra, first, second," is not fully understood. Following is the official grading of the Boston Fruit and Produce Exchange:

Extras shall be composed of the highest grade of butter made in the season when offered under the different classifications, and up to the following standards: Flavor must be fine, sweet, clean and fresh, if of current make, and fine, sweet and clean, if held. Body must be good and uniform. Color, good for the season when made, even and uniform. Salt, neither coarse nor slack salted. Package, good and uniform. Score shall average ninety-five points or higher, except from Nov. 1 to May 1, when score shall average ninety-three or higher. In extra creamery the delivery must contain at least ninety per cent. of the quality described above (extras), and the balance of the goods may grade as firsts. Firsts shall be a grade just below extras, and must be fine butter for the season when made, and offered under the different classifications and up to the following standard: Flavor must be good, sweet, clean and fresh, if of current make, and good, sweet and clean, if held. Body, good and uniform. Color, good for the season when made, reasonably uniform. Salt, neither coarse nor slack salted. Package, good and uniform. Score shall average eighty-eight points or higher, except from Nov. 1 to May 1, when it shall average eighty-six points or higher. In firsts the delivery must contain at least ninety per cent. of firsts, and the balance of the goods may grade as seconds. Seconds shall be a grade just below firsts, and must be good for the season when offered under the different classifications, and up to the following standard: Flavor must be reason-



POT GROWN TOMATO PLANT READY FOR SETTING.

See descriptive article.

ably good and sweet. Body, if creamery, must be sound; if native, must be ninety per cent. solid. Color, fair to uniform. Salt may be high, medium, or slack salted. Package, good and uniform. Score shall average eighty-two points or higher, except from Nov. 1 to May 1, when it shall average eighty points or higher.

The score to which reference is made is the official standard commonly used in judging butter, as follows: Flavor, 45; body, 25; color, 15; salt, 10; general appearance, 5; total, 100 points.

### The Spring Crop Pays.

The expense of caring for tomato plants, while small, is light, as they are then in pots and require little room. After transplanting into the benches the aim should be to get fruit as soon as possible, as the plants are occupying valuable space. If the plants have not been properly checked before transplanting into rich soil they make a splendid growth, sometimes producing little fruit, but usually the crop is simply delayed. Many growers' seeds do not return for ninety or a hundred days after benching their plants, while half that time is all that is necessary. The expense of heating the house for the extra time is quite an item for the grower's consideration.

Tomatoes may be planted among carnations in the spring, and when the Easter rush is over given the entire space with a thorough dressing of fertilizer. Tomatoes for the spring crop are grown after lettuce, radishes and similar crops. As little heat is required, such houses, if of sufficient height to train plants, are well suited to the purpose.

### SPECIAL POINTS.

By checking the plants it is possible to secure fruit in fifty days from benching. Fertilizer is not discharged during cloudy weather, and advantage must be taken of short periods of sunshine to pollinate by hand. Since the product is most valuable, it will pay the grower to pollinate by hand regularly between Dec. 1 and March 1. The advantages are a larger number of fruits set, and larger, more uniform fruits.

A careful selection of varieties for the midwinter crop is requisite for the greatest success. Those varieties developed under forcing house conditions like Best of All and Lordburg give the best results.

Eclipse gave the largest yield both for the winter and spring crops of 1902. It is not quite so early as Best of All, but it produced the smoothest and most solid fruits.

The yield of Yellow Prince was decidedly inferior to that of the Combination grown under similar conditions.

Plants trained to single stems gave a much greater yield per square foot of bench than those trained to three stems, the yield of the former being 1-1/2 pounds, against four-fifths of a pound for the latter.

The average yield for the season, 1901-02, including both the winter and spring crop, was from two to nearly 2 1/2 pounds per square foot of bench, or from seven to almost nine pounds per stem. The spring crop alone yielded four-fifths of a pound per square foot when plants were trained to three stems, and 1-1/2 pounds when trained to single stems.

### Old Home Week in Massachusetts.

The Old Home Week Association of Massachusetts, which was formed on Thursday in Lorimer Hall, Tremont Temple, with Gov. John L. Bates as its president, will, no doubt, do much to cherish the sentiment of love for the spots where the best years of life were passed by the majority of people. No matter how much success or failure we may meet with in the struggle for existence, there is a time to look backward to when the accomplishment of all things seemed possible, and that period is connected with the old homestead, the city, town or village in which we were born. But the home of our youth is always illuminated in our memories with "the light that never was on sea or land." The motherland never loses its hold on the heart. Its sorrows, its privations, are forgotten in the remembrance of its pleasure when the curse of satiety had not rested upon our efforts to derive enjoyment from ordinary prosaic pastimes and occupations.

A return to the old, old home, therefore, renews the freshness of life and bathes our spirits, if not our material selves, in the fountain of youth. It reminds us that there is too little sentiment in our every-day intercourse with one another, and that a hard, matter-of-fact, Gracind attitude towards our fellows is not promotive of good citizenship or in harmony with the Scriptural injunction that we should love one another, which means, we take it, that we should be neighborly on all occasions. And where have there been such neighbors as those we had around us in our youth and childhood? In the great world outside our birthplace we find many acquaintances, but few friends, and Daniel Webster recognized this fact when he went back to his native town to defend a case be-

cause the neighbors of his father urgently desired him to do so. He sacrificed his time, his talents without money and without price, in deference to the old home feeling and in remembrance of the time when he was a farmer's boy among the hills of New Hampshire. And it is this same State that was the originator of the old home week, and where it was last year eminently successful. Governor Rollins conceived the idea and brought it to a realization four years ago, and each recurring year has found the interest in the movement greater than the preceding one.

Massachusetts established old home week by a legislative act over a year ago, and the object of the new association is to serve as a parent to organizations that may be formed in every city and town in the State for the observance of the week in July, which it will, no doubt, welcome home returning thousands from the North, East, South and West. The time of annual vacations cannot be better enjoyed by the sons and daughters of Massachusetts, whose fate has sent beyond its borders, than by a return to old scenes and by a renewal of youthful associations.

Any resident of Massachusetts or any person born in the State is eligible to membership in the Massachusetts Old Home Week Association of which Mr. Thomas F. Anderson of Boston is secretary, and Major Henry L. Higginson of this city is treasurer. The leading men of the Commonwealth heartily sympathize with the objects of the organization and will lend it their earnest support. Gen. Charles H. Taylor has labored untiringly to develop an interest in the old home movement here, and fully deserved the unanimous vote of thanks which he received from the association for his laudable and public-spirited efforts last season to awaken enthusiasm among the people.

### Literature.

Such a situation of affairs, as delineated in Basil King's "In the Garden of Charity," is not common, and has seldom, if ever, received clever individual treatment by an author. The scene of the story is laid on the Nova Scotian coast, and the plot concerns the fate of two women married to the same man. One is an illegitimate wife, although a mother, while the other takes it upon herself to care for this unfortunate woman and allow her to pose as the lawful wife of the dead husband. Charity, the rightful wife, married before the husband went away on a long cruise, and for a long, weary time she watched and waited his return. One day a friend brought word that her husband was alive and well, but living as the husband to another woman. At the time, the husband, having seen Charity's informant, thinks more than ever of the necessity of parting from this illegal union into which he has entered, and returning to his lawful wife, Hagar (wife No. 2), who has in her veins Indian blood, listens stoically to William Pennland's story of the wrong he has done her and how he must right it, but she refuses to allow him to carry out his plan until she sees that it is hopeless to offer further resistance. Then she rows him out to an island from which place he can take a boat for his destination, but for some reason the boat does not come, and he remains there alone a week. At the end of this period Hagar realizes that Pennland is the father of her unborn child, and she must save him. But it is too late. Starvation and the cold have all but finished him, and Hagar finds him on the island only to drag him home to die. Charity arrives just before the end, and the meeting of the two wronged women over the body of the man who has sinned against them cannot but stir one's compassion. Hagar insists that she is William's wife, and that the baby will be lawfully born, while Charity tries to unselfishly submit. She allows Hagar to wear the mourning, to go to the grave as William's widow, and after the funeral she takes Hagar home with her and cares for her until the baby is born. Then it is that Hagar plans to go away. A party of men come one day and accuse her of killing her dead husband. Hagar, although not guilty of that awful crime, confesses how she was the cause of William's death. Then it is that Charity feels that they must part. She has borne Hagar's complaints and her constant nagging over her alleged legal rights, but this disclosure is too much. However, after Hagar leaves, she feels it her duty to call Hagar back. The latter had been hard and stubborn, but now she is willing to be Charity's slave, and the baby shall be Charity's baby. The author throughout holds to his simple drawing of homely life, but he clothes his characters with dignity. The story is pregnant with human interest, appealing strongly to the reader's manhood or womanhood. The characters are clearly developed as the story unfolds, and the background of a rugged coast and deep forest makes an appropriate setting for the battle-ground of human passions. [New York: Harper & Brothers. Price, \$1.50.]

A small volume with a binding of turquoise blue, called "The Turquoise Cup and the Desert," contains two stories by Arthur J. Connelley, author of "The Turquoise Cup," a popular novel containing a suggestion of the long and arduous journey, and of an impending end, although the story is clear with the glorious sunshine coming in warmth over every one. The central character is a young man who is a visitor to the turquoise cup, a treasure of the church. Fair Lady Nora has made its personal possession a necessity would the cup gain her fair hand in marriage. Lady Nora invites the young man to dine on her yacht, and a most graceful scene is the result. There is a cloud in the form of the turquoise cup. Fearing it may be stolen, the cardinal, knowing the condition of affairs, has a dramatic made. The cup is at last alone in the church treasury, but he cannot take the cup, although it is within reach of his hands. So he goes and tells Lady Nora. At last, desperate, the card returns, takes the cup, and goes back a thief, to Nora. The Lady Nora's pride has made a thief of the man she loves. They plan to return the cup, but meeting the cardinal they learn that they hold an imitation, which the cardinal begs Lady Nora to retain as a wedding present. It is a sweet, delicate story, charming and picturesque throughout.

"The Desert" is somewhat of a sterner matter, although it is of the same character. A merchant of the desert desires to prevent the woman he loves from being even taken from him. The father is sending her to a certain woman, Mirza by name, for training in order that she may become a dancing girl. A lawyer tells the merchant that he will have to become a Christian and married by Christian laws. So both change their religion and are married. When they go to Mirza she sees the beauty of her lost prize and discovers—well, that is the exciting point of a story which the reader must learn for himself. Mr. Smith has been fortunate in his artistic conceptions, which are picturesque and above all extremely human. [New York: Charles Scribner's Sons.]

Sargent's drawing of Christian Radford De Wet in the latter's notable book, "Three Years War," is a masterpiece of interpretative portraiture and a most fitting frontispiece. The characteristics of this great Boer leader, as shown by his career during the great struggle, stand out clearly in this drawing. The eyes and the mouth express great humor and self-control, and there is a general expression of kindness about the face, with a firmness and strength, which are essential to a born leader of men.

De Wet has written a most comprehensive work, giving a complete resume of his service in the conflict, from the time he was called and chosen as a commandant. The opening chapters furnish an account of the laws which controlled the burgher, while the greater portion is devoted to the story of the giant struggle. "It was at five o'clock on the afternoon of the eleventh of October, 1899, the time when the ultimatum allowed to England expired. The British had not complied with the terms which the South African Republic demanded, the time for negotiation had passed and war had actually broken out," writes De Wet. The struggle has commenced. From that day forth every Boer seemed possessed with more than one man's strength and force as he fought with all his power and might. Every one knows of the long and persistent struggle which these two small republics made against the vast armies of Great Britain. In speaking of the British surrender De Wet says the effect upon the burghers was general depression and discouragement, while he himself felt more determined to continue the conflict, notwithstanding the fact that many of the men had wholly lost heart.

Throughout De Wet's memoirs, as was the case of Kruger's, there is constant evidence of honest piety and strong faith. He says: "If the reader is eager to know how it was I kept out of the enemy's hands until the end of the war, I can only answer, although I may not be understood, that I ascribed to nothing less than this: 'It is not God's will that I should fall into their hands.'" Paul Kruger's closing paragraph in his memoirs contains the same religious resignation. One is likely to prefer De Wet's book to Kruger's. The latter bears the impress of prejudiced views and unjust suspicions. Each man is of great interest. Kruger's fame is secure as the head of the little republic which Great Britain crushed out; while De Wet came out of the struggle with laurels as a great military leader. Kruger's bitterness will probably never be lessened. As for De Wet, he dedicates his book "To my fellow-subjects of the British Empire." While "Three Years War" may not be the generally accepted account of the memorable contest, it will long live as the authentic account from the Boer side, and it is doubtful if a Britisher will be able to write the history of this period with any less prejudice of his side. [New York: Charles Scribner's Sons. Price, \$2.50 net.]

### Gems of Thought.

...He that holds fast the golden mean  
And lives contentedly between  
The little and the great.  
Feels not the wants that pinch the poor  
Nor plagues that haunt the rich man's door.  
—Cowper.  
...Intellect may give keenness of discernment:  
Love alone gives largeness to the nature, some  
share in the comprehensiveness of God.—John  
Hamilton Truitt.  
...To work fearlessly, to follow earnestly after  
truth, to rest with a childlike confidence in God's  
guidance, to leave one's lot willingly and heartily  
to him—this is my sermon to myself. If we  
could live more within sight of heaven, we should  
care less for the turmoil of earth.—John Richard  
Green.  
...To act—to act quickly—to act up to our own  
best, to our highest aspiration is all we  
can do. It is all that is expected. After that our  
responsibility ceases, and the final result belongs  
only to God.  
—Vaughan.  
...One can go through his work well or shrink  
it. One can consider his neighbor or neglect  
him. One can repress the fever-fit of impatience  
or give it full sway. And the perpetual presence  
of such a choice leaves no hour without guidance.  
—George A. Merriam.  
...The air for the wing of the sparrow,  
The bush for the robin and wren,  
But ever the path that is narrow  
And straight for the children of men.  
—Alice Cary.  
...The sun, the moon, the stars,  
Send no such light upon the ways of men  
As one great deed.—Tennyson.  
...The poorest outward condition will do  
nothing to obliterate the solemnity of life. Nay,  
of nothing may we be more sure than this: That  
if we cannot sanctify our present lot, we could  
not sanctify our future. Our heaven and our  
Father are near or nowhere.—James Martineau.  
...Love all, trust a few, do wrong to none.—  
Shakespeare.  
...The truest lives are cut rose-blond fashions  
with many facets answering to the many  
planned aspects of the world about them; and

simply in glorifying in some way or other  
and on down to a simple but sufficient  
Wendell Phillips.

...Do you suppose that God has made  
out of the world so beautiful that his  
best and most perfect creatures are  
to go on their ordinary course, and that  
in an instant, the only undivided thing in  
the healthy activity of the universe—Henry  
Ford.

...Every minute of sorrow that comes  
lightened by a good action into your life  
is a day of sorrow, so unless it be for all  
the good you may see approaching it, it  
all your future life. It is a noble thing  
that they and we all—Phillips Brooks.

...There are sorrows in our hearts  
which are not sorrows, and which are  
sorrows which are not sorrows, and which  
are sorrows which are not sorrows, and  
which are sorrows which are not sorrows.  
—Edmund Spenser.

The comfortable and comforting  
those who look upon the bright side of  
their lives and sunshine and make  
most that happens seem the best.—Dorothy  
Wendell Phillips.

### Brilliams.

Like as the thrush in winter, when the  
leaves are down and dark and all the woods  
are undimmed, till from his melody  
Orders of spring forth through the forest  
So in my heart, when sorrow's cry  
Is heard and broken, and the frost is strong  
Lays up, defiant of despair and death,  
A single fountain of triumphant song.  
Sing on, sweet singer, till the violet comes  
And south winds blow: sing on, prophetic  
Oh, if thy lips, which are forever dumb,  
Could sing to me, when I am alone,  
Life's darkest hour with songs of joy would come.  
Life's blackest frost would blossom into spring.  
—Edmund Spenser.

The living, loving spirit  
Will find its spirit kin:  
When heart doors swing at love's light touch  
Love surely enters, and we find  
Who have his soul to others  
Shall know the exile's doom:  
For him whose soul has winter  
In vain spring spends her bloom.  
From the German, by Helen Watterston.

In solitary rooms, when dusk is falling,  
I hear the fields beyond the haunted  
towers.  
Beyond the unresponsive forests,  
I hear the voices of my comrades calling.  
Home! home! home! home!

Strange ghostly voices, when the dusk is falling,  
Come from the ancient yew, and I remember  
The schoolboy staid, from plain and wood and  
river.

The signal of scattered comrades, calling,  
Home! home! home! home!  
—William Channing.

We sigh for the town of a vanished land,  
And we think ourselves forsaken.  
But what of the friends that are still to stand,  
And the touch of the hand that is still to clasp?  
—John Trask.

Most men know love but as a part of life,  
They hide it in some corner of the breast.  
Even from themselves; and only when they rest  
The brief pauses of that daily strife  
Wherein the world must always be not to rest  
They draw it forth as one draws forth a tear  
To soothe some ardent, kiss-exhausting boy  
And hold it up to his eye, child or wife.  
His eye may not love and life be one  
Why wait we then alone, when our side  
Love, like a visible god, might be our guide?  
How would the marts grow nobler and the street  
Worn like a dunce-door by weary feet.  
Seen then a glimpse of court-ship of the sun?  
—Henry Tinsell.

### Notes and Queries.

WORKING WILLOWS.—"Sister": All the trees  
in this country of the kind to which you refer are  
said to be descended from a single plant which  
step-son of George Washington, a young officer,  
as a member of Washington's military family,  
sometimes carried messages, under a flag,  
between the belligerent commanders. In this  
service he became acquainted with a young  
British officer who, like others, was fond of  
with an impression that the "rebellion" would  
be speedily crushed out, and that he would then  
settle on the confiscated lands of the rebels. He  
had even brought a twig from the weeping willow  
near Pope's villa, at Twickenham, carefully  
wrapped in oiled silk. As his visions of a castle  
in America faded away he gave a twig to John  
Parke Custis, who, on his return to Abington in  
the spring, planted it near his house. It grew  
and flourished.

ROUGH RIDER.—"M. L.": Col. W. F. Cody,  
"Buffalo Bill," has been credited usually with  
inventing the term you mention, but a Washington  
gentleman says that it originated with the novel-  
ist known as "Ouida." He says he found it in  
her story "Italia," which was published at least  
thirty years ago. "Rough Rider" in this book is  
used twice, with all the significance it acquired  
during the Spanish-American war, in correct  
speech.

NEW YORK'S PROPOSED DESTRUCTION.—  
"Historians": General Washington did suggest  
the burning of New York as a war measure, after  
the disastrous defeat of the American troops on  
Long Island, as is shown in one of his official  
letters to Congress on Sept. 2, 1776, which con-  
tains the following passage: "If we should be  
obliged to abandon the town, ought it to stand  
as winter quarters for the enemy? They would  
then great convenience from it on one hand,  
and much property destroyed on the other. It is  
an important question, but will admit of but  
little time for deliberation. At present I dare  
say, the enemy means to preserve it if they can.  
If Congress therefore should resolve upon the  
destruction of it, the resolution should be a pro-  
found secret, as the knowledge of it will make  
capital enemies in their plans."

A NEW FORM OF ENERGY.—"Ray": Gustave  
Bon, who has made many experiments  
with cathode rays, X-rays and the various  
of radio-activity, and whose investigations of such  
subjects are well known, expresses the opinion  
that all these phenomena are particular aspects  
of a new form of energy, which although its in-  
vestigations have been recognized and recog-  
nized as common in nature as electricity or heat. He  
also thinks that closer study along these lines  
may reveal to us a connecting link between  
matter and energy.

A NATURAL SCIENTIST.—"B. O. S.": The  
foremost of birds is, as you say, remarkable  
natural scientist, whose whole life has been  
spent among human beings, says that he  
has many of the ways of animals, even the  
charitable institutions, athletic sports, law, and  
social festivities. His statements may be a little  
overdrawn, but they are certainly interesting.  
Many migratory birds, he has observed, organize  
themselves into regular "building associations."  
They use the same nests year after year, and  
assist one another in building them and keep  
them in order. Parrots and cranes have been  
observed and their belongings from the attacks  
of other birds. Cranes, also, in searching for  
new feeding ground, send one of the  
number ahead to reconnoitre. It is noticeable  
however, that if the report of this one is  
favorable, a general exodus is not only  
initiated, but two or three cranes  
are detailed to verify it. A distinct etiquette  
prevails among white-tailed eagles on their  
expeditions. The one who discovers the  
never touches it until he has called all the others  
out with him, and then the old eagles are  
allowed to satisfy themselves before the young  
generation come in for their share. Many  
varieties of song birds take a keen interest in the  
other families of feathered folk, and in  
winning matches and solo songs, and  
especially are fond of gathering together to pre-  
form old little hops and runs, which ap-  
pears to afford them all the amusement that  
polkas, waltzes, etc., give their human  
followers. In the matter of the naturalist's  
has witnessed many instances of orphaned birds  
receiving the tenderest care in the nests of  
strangers, and certain tribes of monkeys have a  
trained corps of nurses for all their  
sick or wounded. There is a species of rabbit,  
too, which has a regular ambulance system, by  
means of which a colony whose burrow has been  
plowed under or stopped up are dug out and  
removed to safety by this department of a  
neighboring colony.

This is  
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# Fruit Growing, Truck, Etc., on Light Soils.

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**STRAWBERRIES, STRAWBERRY PLANTS, SMALL FRUITS, ASPARAGUS, CABBAGES, POTATOES AND GENERAL TRUCK CROPS FOR MARKET.**

Thinnest, lightest, poor soils brought up into good condition with large profits from start. Experience in some cases of 25 years and over. Some extracts from "Fertilizer Farming Up to Date," "Rural New Yorker" etc. by H. W. Collingwood, Editor "The Rural New Yorker."

ALSO FOR FERTILIZERS AND FRUIT.

"FERTILIZERS AND FRUIT," by H. W. Collingwood. Under this latter title Mr. Collingwood has written a series of articles in the Rural New Yorker, descriptive of his visits to some of the most prominent and successful growers on the Hudson River, New York, of grapes, peaches, apples, pears, strawberries, gooseberries, blackberries, currants, etc. Mr. Collingwood gives full details of the preparation of the ground, fertilizing, setting out, cultivation, pruning, and all practical details necessary for any grower to know who wishes to follow the methods that have made this section so famous for success in fruit growing. The questions asked by Mr. Collingwood of these practical growers showed answers that bear directly on each phase of the subject, and furnish the best practical experience, and also bring out the principles that underlie successful

fruit culture, and which are applicable in a less or greater degree to all sections, and we believe this book will prove valuable to growers of fruit on all classes of soils, particularly peaches and grapes. One point that is especially emphasized in these interviews, as related by Mr. Collingwood, is the great importance of developing the highest fruiting power, not only in quantity, but in quality of fruit, lusciousness, high color, early maturity, good shipping qualities, and at the same time full vigor of vine, trees and shrubs, freedom of disease, healthy, vigorous stamina, without any tendency to excessive wood growth.

Dr. F. M. HEXAMER, in the American Agriculturist.

## GENERAL FARMING

SEND FOR LATEST PAMPHLET, 1903, ENTITLED.

**FERTILIZER FARMING UP TO DATE.**

CHEMICALS AND CLOVER—THIRD SERIES.

The Poorest, Light, Sandy Soils Brought Up to High Fertility with PROFIT FROM THE START.

A review of practical experience covering twenty to twenty-five years on varied soils, from almost pure sand to medium heavy loam, without stable manure, only the Mapes Complete Manures used, with profit from the start, and the lands found to be steadily improving in fertility and yielding increased profits. These farmers and special crop growers are among the most successful in the country.

"FERTILIZER FARMING," by H. W. Collingwood, editor of "The Rural New Yorker." An account of visits to farms of successful truckers, growers of cabbages, cauliflower, potatoes, etc., on Long Island. This pamphlet has received the highest praise of the leading agricultural journals. It is thoroughly practical.

**Increase Yield from only 400 lbs. per acre Potato Fertilizer**  
Mr. J. S. VAN EATON, Xenia, Ohio, reports: "Season 1902 used the Mapes Potato Manure on four acres of potatoes, planting three varieties."

Yield in bushels computed per acre:

	Variety No. 1	Variety No. 2	Variety No. 3
Mapes Potato, 400 lbs.	195.50	218.10	165.00
No Fertilizer	106.20	142.05	97.50
Increase in bushels	89.30	76.05	67.50

This gives a total increase, on three acres, of 263 bushels, or an average of 87 bushels per acre. My total planting was four acres and say increased yield was easily upward 330 bushels. Cost of fertilizer with freight, \$24.50. Potatoes at digging season were worth 40c., now 80c. Have sold but few so that with no future losses I estimate a large profit.

**FIFTY ACRES IN POTATOES.**

Messrs. Geo. M. Hewlett & Co., Merrick, L. I., Season 1902, report total yield, 12,500 bushels of superior quality. Only the Mapes Manure used.

**APPLE ORCHARDS.**

A grower writes: "We have 600 trees on the farm in New Baltimore, N.Y. But three tons of the 'Mapes Complete Manure, 10 per cent. Potash,' were used on only about one-half of the trees. The 1,600

barrels of apples we picked were nearly all from the trees that we fertilized; the other trees had only a few apples on them. We spread the fertilizer in a circle of about 20 feet, using 20 pounds per tree."

**Potato Yields, Season 1902.**

See pamphlets for further details.

Eighteen acres Potatoes yield 2,200 barrels, equal to 305 bushels per acre. Two and one-half acres Potatoes yield 925 barrels, equal to 411 bushels per acre. Several crops 350 to over 400 bushels per acre on single acres, usually one ton Mapes Potato per acre, wheat, Timothy, clover and corn follow, making a rotation of some five years. The fertilizer is used mainly on the "money" crop, potatoes.

The grower of the eighteen acre piece of potatoes, yield 305 bushels per acre, used of the Mapes Manures the past season, 1902:

Mapes Potato Manure	200 tons
Mapes Cabbage Manure	100 tons
Mapes Fruit and Vine Manure for strawberries	55 tons
Mapes Vegetable Manure for string beans	25 tons

Another grower used the past season:

For asparagus, 165 acres	250 tons
For potatoes	57 tons
For cabbage	17 tons

Shipped, 1901, of cabbage, from seven acres, over 3,500 barrels, with 1,000 barrels left uncut.

Branch, 242 State Street  
HARTFORD, CONN.

**THE MAPES FORMULA AND PERUVIAN GUANO CO.**

SELLING AGENTS FOR MASSACHUSETTS:

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### The Horse.

#### Points of a Good Horse.

The size of horses does not indicate the strength and constitution. Quality throughout and firmness of bone are more important than size.

The muscular fibre must be fine and dense, with well-rounded development in every good nervous system gives vital power, spirit and prompt action without the use of the whip.

A horse with oblique pasterns is less liable to concussion and lameness in the joints of the legs. The body must be well rounded, but deep, not flat ribbed.

Low at the flank with narrow space between the ribs and hip. The legs must be well set under the body, front and rear. A mild, full eye is a sign of good disposition.

A straight face line, thin, large nostrils, low windpipe, are all signs of desirable qualities.

#### Latest Horse Census.

In Maine there are 108,573 horses, valued at an average of \$91.34 each. In New Hampshire the number is 54,007 and average value \$77.83; Vermont, 86,517, valued at \$72.24 each; Massachusetts, 70,875, at \$82.39; Rhode Island, 10,750, at \$91.24; Connecticut, 51,737, at \$78.72; New York, 618,908, at \$89.46; Pennsylvania, 578,247, at \$81.38. These are official estimates recently made public.

New Jersey leads in average value, its 94,287 horses being worth \$96.93 each. Rhode Island is the only other commonwealth which values its horses at over \$90 each. Texas is ahead in ownership of mules, having 407,161, or nearly twice as many as Missouri, which stands second on the mule list. New Jersey again leads in the average valuation column, its mules being worth \$103.22 each. Florida stands first among the Southern States in the average value of its mules, at \$96.64, and Maryland comes next with \$94.51. The value of a mule in Texas is said to be \$51.24 and in Missouri \$20 more.

The average value of mules is given at about \$10 per head greater than average value of horses in the United States. The total number of horses is 16,557,373 and their value over one billion dollars.

A report, based on experiments, has been issued by the English departmental committee appointed to investigate the communication of the infection of glanders. Their experiments were directed to two issues. In the first place, they desired to

ascertain whether an apparently healthy horse which reacts to the mallein test is capable of infecting other horses with glanders under ordinary circumstances. The conclusion in this connection is that such a horse is capable of infecting others, but that the risk is slight, as only one out of eight healthy horses, placed in a stable with an apparently healthy reactor, became infected. In the second place, the question to determine was whether an apparently healthy horse that at one time has reacted to mallein, but has ceased to do so, can spread glanders. The conclusion is that such a horse cannot infect other horses, provided that at least two months elapsed between the last two mallein tests. An important fact brought out is that the disease may be given to swine, horses or men even if there is no cut in the skin, since the germs may work into the system if placed in contact with the eyes. Thorough washing the eyes with water, however, was found to invariably prevent any ill effects of disease germs applied to these sensitive organs.

A German agriculturist advocates steeping and fermenting oats for horses as a means of giving the greatest nutritive power. His method is to have three troughs, each holding enough for a day's ration. The oats being put in the first one, hot water is poured over them, and the whole is well stirred. After standing about six hours the water is drawn off and the oats left to swell and ferment. Another troughful is fixed in the same way the next day, and another on the third day, when the first troughful, having stood for forty-eight hours, is ready to be fed out and the trough refilled. He claims that this gives the most nutritive value.

#### Good Roads Appreciated.

Beyond the question of a doubt the farmers of our State fully appreciate that bad roads mean empty benches in the school-house, a light attendance at church, assist in keeping friends apart, robs the social hour of many a pleasant evening, depletes the town treasury and the individual purse and always raises taxes.

Good roads mean a full and punctual attendance at school, a happy and prosperous church with pastor and people in close relationship in the church and in the home, an inspiration to neatness with more lawn and less moving land near the house, and the farmer's tools removed from God's overshadowed to a proper covering; the brush hook is made to sing a merry lay on the margins of the road, the well are made happy and the ill are made well; in fact, all nature presents a new face. With good roads the artist in any line of home building finds employment; every town's grand list will be appreciated when the State has established its improved highways, and the tax bill will be thereby lessened. Thus the individual is benefited, and with the benefit that comes to the individual will come the prosperity of the town, the county, the State and the nation.—James B. McDonald, Connecticut Road Commissioner.

Cottonseed meal, according to a recent report of Prof. J. B. Lindsey of the Massachusetts Experiment Station, is reasonably pure and reliable as sold in Massachusetts markets. Practically all of the twenty samples analyzed came very close to the guaranteed



TOMATO HOUSE TWO WEEKS AFTER SETTING.  
See descriptive article.

forty-three per cent. of protein and nine per cent. of fat. The analysis varied from 42.11 per cent. protein to 43.43 per cent. All but three or four were above the guaranteed forty-three per cent. in fat, varying from 7.0 per cent. to 11.73 per cent. But only two samples were below eight per cent., while six were above six per cent. The above is a gratifying showing, since it indicates little, if any, adulterated meal now in the market.

#### Free Delivery Weather Service.

In co-operation with the Postoffice Department, Prof. Willis L. Moore, chief United States Weather Bureau, has lately inaugurated a new system of disseminating the weather forecasts throughout the rural districts of the United States. Each night a forecast is made for the succeeding two days. This is printed on slips, which are then mailed about midnight to such postmasters as can be reached the next morning. The carriers of the rural free delivery then distribute them to the families along their routes. In this way, in most localities reached, the forecasts are received some ten hours earlier than would be possible in any other way. This system has now been in operation a year. Some ten thousand families are being served and with the extension of the system, this number will doubtless be largely increased. It is probably the best method yet devised for furnishing the forecasts to a class of people most interested in them. While the agricultural and maritime interests have always received good service, owing to their nearness to Weather Bureau stations, the agricultur-

al districts have not fared as well on account of the difficulty of reaching them. The widespread introduction of the rural free delivery has, however, opened a way to give to the farmers and small towns the benefits which the cities have heretofore largely received. It is the desire of the section director to hear from the postmasters of rural free delivery centers that do not now receive the forecasts and would like them. In all cases where the mail facilities are such that the forecasts can be received in season to make them of benefit, they will be immediately furnished upon the receipt of a request to that effect.

#### Good Results from Swamp Muck.

Some time ago articles appeared in agricultural papers claiming that there are no great fertilizing properties in muck, that its only value is as an absorbent, and that other material just as good could be obtained with less labor and expense. When I was a boy, and worked at home on the farm, my father was a firm believer in muck. He had a fine muck bed, and drew out hundreds of loads yearly, and used it with good results on a stony hill farm in one of the back towns of Vermont. It was used in various ways mixed with barnyard manure, in the hog pen and by itself.

A piece of run-out mowing had been in grass for many years until it would not produce fifteen cuts of hay per acre, and forty loads of muck, which had been drawn from the pit in August and left for the winter frost to work on, were spread on an acre of this land in May. It was then plowed and

well harrowed, then furrowed, and ten loads of the muck put in the hills and planted with corn. The result was an extra yield of corn and fodder. The next year the lot was sowed with wheat and grass seed; a fine crop of wheat was harvested. For a number of years the field produced a fine crop of hay, no other fertilizer having been added. If muck could produce such results then, why not now?  
East Bethel, Vt.  
C. C. WHITNEY.

#### Creamery Butter-Making.

As soon as drawn from the cow, the milk is submerged in deep, covered cans in cold water, where it remains for the cream to rise. I think this method better than the separator. When the milk is drawn off the cream is taken in large cans to the creamery, poured into the large vats, so arranged that it can be tempered and ripened to any degree desired, then drawn into the revolving square box oak churn which turns forty times a minute. When the cream is 64°, it takes about forty-five minutes to bring it to the granular stage. It is washed with pure, soft spring water, then salted and revolved a short time, taken out with ladles upon the worker, where it is brought to the desired condition. It is then printed in moulds and placed in state to cool, when it is wrapped in parchment paper and placed in trays that fit the trunks in which they are placed when ready for shipment. The butter is never touched except with paddles.  
Montague, Mass.  
A. M. LYMAN.

#### Growing Hothouse Tomatoes.

High prices for hothouse tomatoes are causing some inquiry as to the conditions of growing the crop. The profits of the winter crop this year, however, have not been as large as they appear. Coal was scarce and high, and tomatoes require for best results to be kept at a high temperature; at night about 70°, and a little higher by day when sunlight aids the furnaces. On many days the temperature will at times reach summer temperature, which will be so much the better for the crop.

Now that coal is more plenty, a good many houses will be filled with tomatoes, which set now will grow during a time of the year when the sun runs high and the cost of fuel is much less than for the winter crop. Many growers plant to lettuce in winter and follow in the spring with cucumbers or tomatoes. Several of the experiment stations have tried the tomato crop, and it is to be noted that all seem to have found it successful and profitable, from which fact the beginner ought to take courage. By permission of Alvin C. Beal of the experiment station at Urbana, Ill., a summary is given of the station's experience with hothouse tomatoes in 1902, also illustrations showing a potted plant ready to set and the interior of the house with the crop under full headway.

#### STARTING THE CROP.

Rich, mellow soil seems to be best if the plants are pinched back as they should be at five feet in length. Forcing tomatoes, as is known, are vine-like sorts, and are trained on cords along the sides of the house like cucumbers. The spring crop was set in successive lots, March 25 to April 10, the plants having been raised from seed sown the last of December and plants put in 34-inch pots the last of February. Lillard and Best of All seemed to give best satisfaction.

The plant benches were six inches deep and filled with rich soil, half loam and half well-rotted compost. It may be noted here that the New Jersey station obtained good results from chemical fertilizers for hothouse tomatoes. Mr. Beal applies wood ashes twice after plants were in full bearing. Plants were set 18x24 inches. In water, care was taken to wet the soil throughout, but not to overdo the matter.

#### TRAINING.

Plants were trained to run from one to three stems, and a strand of twine was run from the base of each plant to a point on the sash bar as near overhead as possible, where it was tied to a nail, while the lower end, to prevent accidents, was tied into a loop of wire, which passed through the soil and the crack in the bottom of the bench, where it was made fast. This furnished a neat and secure support. The plants were tied to it with raffia at intervals of about a foot. Sometimes the plants are simply twined about the strings, but in this method the plants often slip down under their load of fruit. When down, the plants are more likely to be broken when picking the fruit, and certainly they do not look so well as when they are properly tied up. The system of training used affords the plant all the light and air possible. The fruits set evenly and the crop is easily gathered. To admit more light the larger leaves were clipped back one-half their length. All side shoots were pinched out as they appeared.

**Horse Owners! Use**  
**Caustic**  
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The most effective remedy ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC OILS. Inexpensive to produce and of immediate use. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.



# MASSACHUSETTS PLOUGHMAN



VOL. LXII. - NO. 26

BOSTON, MASS., SATURDAY, MARCH 21 1903

WHOLE NO. 3190

**MASSACHUSETTS PLOUGHMAN**  
JOURNAL OF AGRICULTURE  
PUBLISHED WEEKLY AT  
NO. 3 STATE STREET,  
BOSTON, MASS.

**TERMS:**  
\$2.00 per annum in advance. \$2.50 if not paid in advance. Postage free. Single copies 5 cents. Advertisements in its columns must be paid for in advance. Advertisements for publication, but as a guarantee of their faith, others are they will be assigned to the publisher. All matter intended for publication should be written on note size paper, with ink, and signed by the writer. The PLOUGHMAN offers great advantages to advertisers. Its circulation is large and among the most active and intelligent portion of the community. Entered as second-class mail matter.

## A Study of New Vegetables.

The seed catalogues are out now. Each one has its new varieties and novelties. Not all of these would be valuable to us, but there is no doubt but some of them would be. That, of course, we must find out for ourselves.

Something very fascinating to me is included in the growth of vegetables. It is hard work and there may be much to bother and perplex, but I wouldn't give two cents for a profession in which, when a man has followed it for a time, he knows all there is to know, and becomes in reality like a machine.

We must love our work if we would be contented and if we would get the most out of it. Experimenting and trying new plants and seeds will increase our interest. Our success is not measured entirely by the amount of money we make, but in part by the pleasure and enjoyment we get out of it. The varieties that I shall mention are not all new, but are those which after trial seem worthy of future use.

In beans we have Burpee's new stringless green pod, the best green bush bean we have ever tried. It is very hardy, even successfully withstanding frosts which destroy the Early Six Weeks. It is very hardy and wonderfully productive. The pods are a rich green color, meaty, broad, and entirely stringless, even when fully matured. We tried this variety for the first time last year and were so well pleased with it that we shall try it again. Kentucky Wonder is a green pole bean. The pods of this variety are seven or more inches long, very meaty and stringless when young. If the pods are kept picked the vines will continue to bear throughout the season. Golden Cluster is a wax pole bean. The pods are of good length, broad and flat. They are of good quality, being quite meaty and crisp. Worcester pole, a shell bean, is valuable on account of its size and high color and also for its keeping qualities both on the pole and after being picked. It is a quick seller and will command higher prices than the common sorts.

In cabbage, Solid South, Hollander and Hundredweight are fine varieties that are not very well known. They are sure headers and also very solid. Some heads grow to immense size. The hardest and heaviest for a medium-sized head is Danish Ballhead. This is a fine variety for late and is especially valuable for small families on account of its size. It can be planted closer together than the larger varieties because of its compact growth. The heads seldom burst in the field and are fine keepers.

For celery we have not found a variety that will take the place of White Plume, which is a white, crisp celery, when properly grown and bleached. We have tried both Golden Self Bleaching and Golden Heart, but in our soil a large percent of them grow soft. In this respect Paris Golden is much better and will probably take their place with us. For winter and late use Giant Pascal, on account of its keeping qualities and its thick, crisp stalks, takes the lead.

In beets for early the Early Eclipse or the Egyptian; for general crop, the Dark Red Detroit. The latter has a good shape and color and is the best we have found so far. Endive is very useful for salads and for garnishing. The Wonderful or New York lettuce is a curly-leaved, loose-headed lettuce, which is fine when a strictly head lettuce is not desired. For head variety, the Seeded Tennis Ball is first, closely followed by Deacon lettuce. For forcing under glass we recommend Rawson's hot-house lettuce. This is very large and a sure header and not liable to rot in the heart.

Early and late corn, Cory and Evergreen and medium Potter's Excello, which is every one prefers to Evergreen because it is so sweet. In cauliflower, Burpee's Early and Burpee's Dry Weather are equal, if not superior, the old Snowball. The Best Early is extremely early and certain to produce fine heads, the latter very solid and weighing more than other heads of equal size. The latter resembles the Best Early, but is a week later in heading. It is especially adapted for growing in dry land.

Remember White Spine seeds to be the best for general purposes. Both Boston and New York Pickling are valuable for pickling. The best we have found in peas is the Early Clipper. It is probably the earliest and can be finished in two pickings. Its height is medium, and the peas are very sweet if picked at the right time. The only thing into consideration, it is the pea in its class for a private or for market purpose. We have grown Victoria spine for general crop and have found it quite good. It has not been satisfactory for spring and summer, but for fall it

seems to be all right. For growing in hot weather, New Zealand spinach takes the place of all other sorts, as the heat has no bad effects on it. This is not a spinach of the ordinary kind, but a branching sort, the tips of the branches being used. The more it is picked the more it branches, in a short time covering quite a large surface. The seeds take from three to four weeks to germinate, but when they do start they grow very quickly. The old Hubbard still remains the standby in squashes. Bay State is a great favorite with us. Golden Hubbard is a fine variety, ripening in a shorter time than the common Hubbard.

The earliest tomato we have found is Spark's Earliana. For late use it isn't very good, as it is la foliage to protect the fruit from the sun. Because of this it doesn't ripen properly. Notwithstanding this fault it is a valuable sort because of its earliness. Another fine variety is Burpee's Quarter Century, growing a good deal like Dwarf

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trick if you have a manure cellar.

A fine practice is to add a little kainit to the bedding daily. It will gather up the valuable gases of the urine and manure, add its own potash, and enhance the cleanliness of the stable and the value of the manure pile. Don't be afraid to use sawdust liberally under your cattle. Such mechanical agent as well as absorbent will pulverize the heap while you sleep.

So cared for, you will haul out your well-filled carts of manure of such a grade next spring that will fill your soul with hope of an abundant harvest and increased permanent fertility of your fields. It is surprising how much a man can accomplish in a day when he sets out to make an improvement of such a nature. A. J. HAMM.

Leighton's Corners, N. H.

**A Lamb Feeder.**

If we have been fortunate to have a great many more lambs than ewes, and some are

are apparently frozen, but will revive if brought into a warm room. House flies hide in cracks and crevices in the house, and mosquitoes are sometimes found in similar locations, usually near a water supply.

Many bugs and sometimes species of the butterfly winter in hollow trees, logs and such places. The cocoons of many large moths and butterflies may be seen attached to twigs and shrubs. The cocoon of the Cecropia moth is often more than four inches long, silvery gray in color, which has a leathery outside and silky hair within, and is proof against cold and wet.

Grasshoppers, katydids, many moths and a great number of other insects pass the winter in the egg stage, the eggs being laid in the ground in cracks of fence posts, or in logs and other slightly sheltered locations. The gypsy moth, the pest of eastern Massachusetts, lays its eggs upon the trunks and branches of trees. Some trees, until examined closely, seem to have been spotted with mud. The moth eggs and moth have great vitality and will stand severe weather. A tree covered as described, will, unless the insects are destroyed, be entirely bare of leaves in three or four days after the moths get to work.

## What the Grange has Done.

The Grange has much to do in forming public opinion by its weekly and monthly meetings and its State and national assemblies. We can hardly be aware of its influence and power. Talk is persuasive and has made itself felt from time immemorial. The first legislative attempt in Maine was in trying for the enactment of the listing bill, and we were told if we would go quietly out the back door we would be allowed to do so otherwise we were in danger of being fired, but we kept on. We next headed off the State highway commission with its three men, their \$1800 salaries, together with its \$200,000 appropriation. Then came the increase of the salaries of the justices, while the last work was the nine tax bills, eight of which carried and resulted in the addition of \$645,000 to the State treasury.

Now when asked what the Grange has done, I say it is worth to the rural population of the State in the social line more than a thousand times what it has cost. In the insurance to farmers it has been worth \$25,000 in hard cash. It is a reflection on the intelligence of a person to ask what the Grange is doing. Its accomplishment, of benefits to rural people of the nation is well known. The elevation to cabinet rank of its department of agriculture, the rural delivery, the latter would entitle it a movement for all time if nothing else had been or would be accomplished by it.—Maine State Master, Gardiner.

## Deep or Shallow Plowing.

For clayey land I like deep plowing in autumn, and shallow plowing, or, only dicing in the spring. Some land I like to subsoil to a depth of eighteen inches, once in every few years, in order to open the too compact subsoil, but such work is, of course, useless on land having an open subsoil.

On sandy loam I like shallow plowing, but one must be governed by circumstances, which are too numerous to mention here, in deciding whether to plow deep or shallow. The condition to aim at is to have the soil firm enough to permit of the subsoil water passing readily upwards through the land, and not so firm but what the roots of plants can easily penetrate it.—Prof. S. B. Green, Minnesota.

## For Pork Producers.

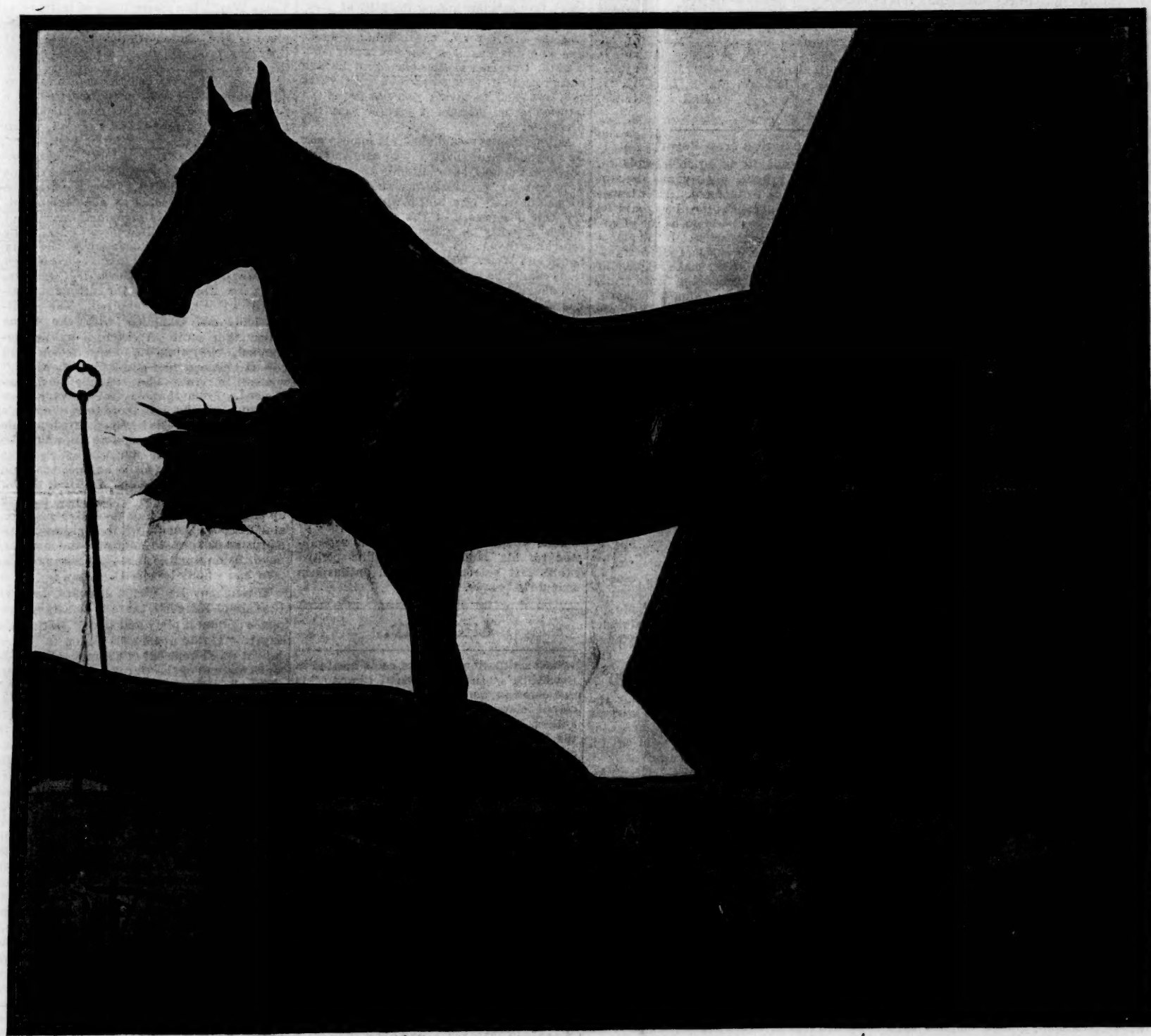
A well-known pig breeder recommends out clover and claims the following an ideal ration for growing pigs: Use fifty pounds out clover hay, ten pounds fine middlings, forty pounds corn meal. It must be wet enough to make the meal stick to the wet clover.

Many breeders weaken their stock by breeding too young animals. It is claimed on good authority that pigs from mature parents are larger and better stock. The most careful breeders do not allow sows to bear too young, until they are thirteen or fourteen months old. There is no question but that many strains of swine have been weakened by incorrect methods of breeding. Prof. J. H. Grisdale of Ontario believes in breeding pigs under conditions favorable to health and strength. Even if the space is small, it must be well ventilated and well lighted and kept clean. Under these conditions large pens are not required. He thinks that barley is a fine food to produce firm bacon. He also recommends oats, skim-milk and whey.

A prominent Western Institute speaker advises fall pigs, because it requires less labor to produce the food. "If you want pigs that will take most of the food where it is grown, take fall pigs; if you want to raise pigs that will be ready for market when it is at its best, take fall pigs; if you want pigs that are easy to raise, take fall pigs."

## Makes Plowing Easy.

Why is the sulky or riding plow not used more freely in the East? Last season I used one on my hard and somewhat rocky soil with perfect success. It will do as much work as any plow, needs only a good average team, and is almost as easy for the plowman as a mowing machine. My plow is of the double-share or right-and-left-hand type adapted for side hills or going back and forth at one side of a field, making no dead furrows through the middle. It costs as much as a mowing machine, which is the main thing preventing its common use, but which has been paid for by outside plowing, which would have been too hard for me with a common plow. No repairs have been needed yet. S. I. H. Middlesex County, Ct.



THE NOTED TROTTER SIRE, ALMONT. FOAMED IN 1864. DIED JULY 4, 1884.

Champion, but being earlier, more productive and a better keeper. For all other purposes the Matchless seems to be the best with us.

The Martyna is quite ornamental in growth. The pods are picked while young and tender and are used in vinegar. The pods of okra are picked while young and tender before any woody fibre is formed. They are used in making soups. Salsify or vegetable oyster, so called because it resembles the oyster in flavor and may take its place, is a fine vegetable to grow for winter when other vegetables are scarce.

HERBERT W. TAYLOR,  
Middlesex County, Mass.

## The Farm Grape-Vines.

"What shall I do with these grape-vines, neighbor? They are all over the walls and fences."

"Some on the ground and sides of the buildings, too," I assented. "Every vine has run to wood; bunches are poor and full of gaps; the grapes don't all ripen; isn't that so?"

"Yes, but I don't know just what to do, so I have neglected them, just as many farmers do."

"Pruning thins the wood and thus thins the fruit, so that what is left has a chance. The fact to bear in mind is that the fruit is produced on the new growth, not on that of the year before. So you can cut back about all the old growth and still get all the fruit the vines can ripen in a first-class manner. Cut your old vines right back to a skeleton, with just enough wood left for the new growth to start from in such a way that it will be distributed well over the part you wish to cover. On a stone wall or rail

four-foot cross arm over the top. Tie the T-shaped vine to your T-shaped trellis. The branches will send out the fruiting shoots."

"That looks simple. And what shall I do the next year?"

"Just the same thing, saving only enough of this year's growth for the side arms. Don't be afraid to cut right back every year. When the vine gets old and stubby about the main trunk, use fresh growth from the trunk or from the ground, if there are fresh sprouts available."

"Now here is a vine which I wanted to make a lot of wood and leaves to cover the back porch, so instead of cutting out much of the wood, why can't I thin the fruit directly by picking off half the bunches as soon as they show?"

"That will answer the main purpose to a certain extent, but in a few years there will be such a tangle that but little fruit will set, and what there is will not ripen well. If I were you," I concluded, "I would put some choice vines in an open space where you can get at them to cultivate and prune and manure, put up post or wire trellises, and give the grapes a chance to show you what fancy fruit is like. You wouldn't bother with these scattered, neglected vines any longer, I promise you."

G. B. FISKE.

Massachusetts.

## The Farming of the Future.

A very cheerful view of New England agriculture was expressed by J. W. Stockwell of the State board in last Saturday's address before the Massachusetts Horticultural Society. The secretary's recent predictions have a solid foundation in the progress of agricultural education and the growth of intensive farming.

ous ends for the benefit of all. We see the bright day when arbitration shall settle the differences of nations and war's costly tribute shall cease. We see the home in which all comforts are found and all graces abound; its approaches lines of beauty, its crown of blessing the love and contentment that dwell therein. We see the wealth of character and honesty of purpose and life more honored than gold, and honest industry more prized than the indulgence of wealth. We see all this, not as a mirage or a far-distant view, but growing nearer and nearer and never hastening so rapidly to its accomplishment as today."

Care of Barn Manure.

Riding past a neighbor's farm barn the other day, I saw his man step to the door and with a broad sweep of his shovel spread a lift of manure from the heap over the broad side of a heap, which had accumulated from a succession of similar movements, while the coarser lumps rolled away from the base of the pile to dry and blow away as to make a pen ten or twelve feet wide and the length of your heap, plank or board from close to the ground up, on the inside of the posts, likewise the ends. Level off the manure and keep the edges as high as the centre. Better yet, put a roof over the pen, line it to the roof, put in a window, and keep there a couple of shovels to each twenty feet in length. Do this last pig

not supplied with milk, you can aid the ewe by feeding the lamb cow's milk, good Jersey milk, as I feed the young lambs, so as to push them right along and get them on the market as early as possible.

I have used for the past few years what I call a lamb feeder. It is a tin pail with a tight fitting cover, that will hold one gallon of milk. On one side are three sprouts soldered on near the bottom of the pail and extending outward as high as the top of the pail, made so that the rubber nipples can be put on. By feeding them a few times from a bottle, which is more convenient to teach them at first, they quickly learn to be on hand for their milk when they see you coming with the pail. Give them all they will take of this Jersey milk every morning and evening. By feeding in this way they get no setback, but grow equal to the best ones.

Corliss, Wis. R. E. ROBERTS.

## Insects and Cold Weather.

Observers often wonder what becomes of the vast numbers of insects and eggs which are alive at the close of the warm season. It is evident that some of them must live to preserve the species, but in what manner do they survive? What becomes of the majority? Millions of eggs and young are destroyed by chickadees and nut-hatches, and vast numbers are eaten by wood mice, squirrels and parasite insects. A few are successful in protecting themselves.

Many species of the beetle live under the loose bark of the trees, in decaying logs and similar substances. Click beetles burrow holes below the surface of the soil. Ants live in elaborate burrows beneath the surface or winter inside the trunks of trees which are out in winter. When found they



## Butter Firm, Cheese Steady.

The supply of the better grades is moderate, and the Boston market, although not very active, has been working up in sympathy with advanced New York and Western quotations. Most dealers report low grades very hard to sell, and trade dull in everything but fresh creamery and fancy held stock.

George A. Cochran: "The situation is a little better for top grades, but lower grades remain unchanged. I have bought for export some lots of low-grade butter at 12 cents and 15 cents, and for domestic use fancy held stock at 23 cents. The situation is a very little better on fancy grades; others are dull as ever."

Chapin & Adams: "Prices have improved about one-half cent per pound for fancy creamery. There is more demand for storage, many lots changing hands. Not much doing in other grades. The situation has somewhat improved as compared to two weeks ago."

L. Sloan & Co.: "Butter is selling slow, and prices unsettled. Dealers are holding off, expecting a decline with the advance of warm weather. Dealers are willing to sell at low quotations to force the market. Market is firm on eggs."

Receipts at New York, Wednesday, were 640 packages. Trade is fairly satisfactory in extra creamery at 28 cents, or even a fraction more for high-scoring lots. Storage creamery is also doing pretty well at 23 to 24 cents. Low grades are quiet, but doing a little better than formerly in point of sales. Exporters at Boston and New York have been making a few shipments of late.

Cheese receipts at New York, Wednesday, 1846 boxes. Demand is fairly active, although most sales are in small lots. Top quotations of 14 1/2 cents show the firmness of the situation. Colored cheese is selling more freely than white. Skins are in light supply and held at full quotations. The situation at Boston is unchanged, supplies being light and quotations steady. Receipts at New York for the week 31,750 packages butter, 9030 packages cheese, 62,300 cases eggs, and at Boston 564,493 pounds butter, 1575 boxes cheese (besides 4571 boxes for export), 14,981 cases eggs. Last year the figures at New York for the week were 26,925 packages butter, 9513 packages cheese and 33,107 cases export, and Boston, 514,500 pounds butter, 1656 boxes cheese (besides 7778 boxes for export), 7373 cases eggs.

## Vegetables and Fruit.

Onions are in oversupply in Boston and New York. Some lots have been sold at 30 to 40 cents a bushel. Choice grades, however, hold firm, but the bulk of holdings can be sold only by forcing the market. Onion growers who stored last fall hoping for an advance by this time have been disappointed. The recent warm weather caught a number of shipments going out, causing them to become soft and unsalable. It is estimated that in the onion district of New York State there are fully fifty thousand bushels in storage, with the market no stronger than a month ago. The situation is something like that in the apple market, both being weak at a season when prices should stiffen. Potatoes show some signs of rewarding the patient holder, receipts being light and prices moving up a peg or two. The top quotation for earload lots in Boston is 83 cents, which is for fancy Aroostook Green Mountains. Good lots from New York bring 70 cents. Other old vegetables hold about steady.

Southern truck is in moderate supply with some lines higher. Kale and spinach are nearly of poor quality; 170 boxes spinach arrived by boat Tuesday. String beans are scarce. Southern asparagus begins to arrive now just as the hothouse product is giving out. The stock and bunches are larger than the hothouse grown and bring \$1.25 to \$1.50 a bunch. Romaine and escarole now in Boston market are said to be imported from Europe. South African plums are still on the market at \$1 per dozen.

Hothouse products barely hold their own, cucumbers being somewhat lower and tomatoes having dropped slightly. Lettuce holds nearly steady in Boston, but quotes lower in New York.

Southern strawberries have been plenty, but of such good quality that prices have held about steady. Oranges from California have been plenty and cheap, but Florida are about done for the season. Cranberries are scarce and higher, and the price has out the demand to very narrow limit.

Receipts at Boston for the week: Apples, 23,495 barrels; cranberries, 205 barrels; strawberries, eighty-six ref.; potatoes, 133 cars, 731 bushels; sweet potatoes, 531 barrels; onions, 1225 barrels.

## Provision Markets Firm.

Pork provisions are higher than ever, with demand active. Receipts from the West continue rather light. The kill at Boston last week was twenty-three thousand, compared with twenty-four thousand the week before and twenty-five thousand last year at the corresponding date. The export trade from Boston shows some increase, but not to a marked degree, prices being too high for foreign buyers. Total Western packing 425,000, compared with 435,000 the preceding week and 455,000 two weeks ago, as given by the Cincinnati Price Current. For corresponding time last year the number was 415,000 and two years ago five hundred thousand. The quality is somewhat irregular, mainly fair to good. Prices are higher; the average for prominent markets is about \$7.10 per one hundred pounds, compared with \$6.50 a year ago, \$7.05 two weeks ago, \$6.15 a year ago and \$5.50 two years ago.

Fresh beef is in full supply and prices changed but slightly. Only a few fancy steers bring above seven cents. Beef arrivals for the week are again very large, being 152 cars for Boston and 83 cars for export, a total of 235 cars; preceding week, 159 cars for Boston and 69 cars for export, a total of 228 cars; same week a year ago, 140 cars for Boston and 75 cars for export, a total of 215 cars.

The live-stock movement at the five most prominent markets of the West may be taken as an index of the conditions in that section of the country. For January, 1903, a total of 2,724,409 head of cattle, calves, hogs and sheep was reported, in contrast with 2,947,631 head for January, 1902, and 2,780,296 head for January, 1901. A continuous increase has occurred in these three years in the case of the receipts of cattle, calves and sheep, but a very marked falling off in the case of hogs. At Chicago, Kansas City, Omaha, St. Louis and St. Joseph the combined receipts of cattle in the first month of this year were 632,122 head, compared with 586,611 head in January, 1902, and 532,616 head in January, 1901. Receipts of calves were respectively 22,924 head, 17,900 head and 12,432 head; not including January receipts of sheep were, in 1903, 200,411; 1902, 229,000 head. Receipts of hogs at Omaha and St. Joseph in January, 1903, were 1,406-

903 head. The much lighter figures of 1,414,320 head for January, 1902, and 1,719,054 head for January, 1901, show how much of a decline has occurred in this feature of the live-stock trade. Nevertheless, the traffic receipts for January for three successive years, beginning with 1901, have lost but little, the number of cars arriving being respectively 53,051 cars, 52,829 cars and 53,800 cars.

The feeder movement, including stock driven to the country, for the corresponding period shows an opposite tendency, so far as Kansas City and St. Joseph are concerned. The combined feeder movement of these two markets in January, 1903, included 66,466 head, compared with 50,181 head in January, 1902, and 65,196 head in 1901.

## Apple Market Weak.

Receipts of apples have been very heavy at the large Eastern markets the past week, and sales are made with difficulty. The approach of warm weather has somewhat discouraged the hopes of holders, and they have been forcing their fruit upon the market, preventing the rise that would naturally occur towards the end of the season for Baldwins and other medium-keeping varieties.

Another bad feature results from the slump in the British markets, closing the profitable outlet in that direction and causing exporters to unload their holdings on the local markets. This is the situation in Boston, and the average of prices is lower, if anything, than prevailed last week. Nothing but fancy Maine or cold-storage fruit will exceed \$2, and there is a big supply of country arrivals which have been stored in cellars, and are poor to ordinary in condition. For such lots dealers are very glad to get \$1.50 and will accept \$1.25 for the poorest lots. Others which are of good size and condition bring \$1.75, and if bright, high colored and uniform \$2. But the great bulk of actual sales, cold-storage stock excepted, are at \$1.25 and \$1.50. Russets are not yet in full demand. Prices range about as for Baldwins.

Said O. W. Mead: "The commercial buyers have had a wrong idea of the amount of apples in the country at the beginning of the season and put prices too high. If a large part of the crop had been worked off at say \$1 to \$1.25 a barrel, the growers would have been better off than to hold it till now and get only \$1.50 or \$2 at the most after handling, storing, sorting and standing the shrinkage. If this had been done, the rest of the crop would bring a good price at this time."

Liverpool advices report the apple market the first of the week as being poor and depressed on account of large arrivals. Robert Adamson Company report through Lawrence & Co., Baldwins at \$1.70 to \$3.15, with a few at \$3.35. Canadian apples range from \$2.15 to \$3.18. Another Boston exporter says that Liverpool has sagged off a shilling or two since last week, and many lots are arriving badly out of order and clogging the market. Baldwins at fair demand, netting in Boston \$2.65 for cold-storage stock. Russets range from \$1.50 to \$2.50 net in Boston.

Apple shipments from Boston for the week were 17,000 barrels, all to Liverpool and Glasgow. Total from Boston since the season opened 765,694, compared with 141,000 in 1901-02 and 402,000 in 1900-01. The shipments from Boston alone this season have about equalled the shipment from all ports last season.

In a special report forwarded March 11, G. R. Meeker & Co., New York, say: "We think our prediction hitherto expressed regarding the Liverpool market is beginning to prove itself, and in referring to the London market, we think it will remain tolerably steady, unless shipments increase and Liverpool dealers take up the idea of forwarding part of their surplus stock to that centre. The same remarks will apply to the Scotch markets, although we consider any decided retrograde movement there to be out of sight at the present writing, and anticipate a fairly steady market. Any shrinkage in prices there will be due to the fruit arriving out of condition, which is hardly a fair criterion as a basis for quotations, as good fruit will do well. The shipments for the week ending March 7, at the present writing, from all points, are reported to be approximately: To Liverpool 35,000, London 12,000, Glasgow 10,000, various 45,000.

"The Tasmanian apple crop is reported to be in the neighborhood of three hundred thousand cases, with shipments spread over about nineteen weeks, at an average of about sixteen thousand boxes weekly. The first shipment, consisting of fourteen thousand cases, left Tasmania Feb. 13, and is due to arrive in London during the first week in April. These exports will be considerably larger than last year, and some sources of information estimate them as high as four hundred thousand. According to present advices the Australian crop is also reported large. The above information should be taken into consideration by American shippers, especially those inclined to be slow in sending forward fruit intended for export."

## The Market Grades of Butter.

Recent inquiry concerning the terms applied to the various grades of butter, shows that the exact meaning of "extra, first, second," is not fully understood. Following is the official grading of the Boston Fruit and Produce Exchange:

Extras shall be composed of the highest grade of butter made in the season when offered under the different classifications, and up to the following standard: Flavor must be fine, sweet, clean and fresh, if of current make, and fine, sweet and clean, if held. Body must be good and uniform. Color, good for the season when made, even and uniform. Salt, neither coarse nor slack salted. Package, good and uniform. Score shall average ninety-five points or higher, except from Nov. 1 to May 1, when score shall average ninety-three or higher. In extra creamery the delivery must contain at least ninety per cent. of the quality described above (extras), and the balance of the goods may grade as firsts.

Firsts shall be a grade just below extras, and must be fine butter for the season when made, and offered under the different classifications and up to the following standard: Flavor must be good, sweet, clean and fresh, if of current make, and good, sweet and clean, if held. Body, good and uniform. Color, good for the season when made, reasonably uniform. Salt, neither coarse nor slack salted. Package, good and uniform. Score shall average eighty-eight points or higher, except from Nov. 1 to May 1, when it shall average eighty-six points or higher.

In firsts the delivery must contain at least ninety per cent. of firsts, and the balance of the goods may grade as seconds. Seconds shall be a grade just below firsts, and must be good for the season when offered under the different classifications, and up to the following standard: Flavor must be reason-



POT GROWN TOMATO PLANT READY FOR SETTING.

See descriptive article.

ably good and sweet. Body, if creamery, must be sound; if ladies, must be ninety per cent. solid butter. Color, fairly uniform. Salt may be high, medium, or slack salted. Package, good and uniform. Score shall average eighty-two pounds or higher, except from Nov. 1 to May 1, when it shall average eighty points or higher.

The score to which reference is made is the official standard commonly used in judging butter, as follows: Flavor, 45; body, 25; color, 15; salt, 10; general appearance, 5; total, 100 points.

## The Spring Crop Pays.

The expense of caring for tomato plants, while small, is light, as they are then in pots and require little room. After transplanting into the benches the aim should be to get fruit as soon as possible, as the plants are occupying valuable space. If the plants have not been properly checked before transplanting into rich soil they make a splendid growth, sometimes producing little fruit, but usually the crop is simply delayed. Many growers secure no return for ninety or a hundred days after benching their plants, when half that time is all that is necessary. The expense of heating the house for the extra time is quite an item for the grower's consideration.

Tomatoes may be planted among carnations in the spring, and when the Easter rush is over given the entire space with a thorough dressing of fertilizer. Tomatoes for the spring crop are grown after lettuce, radishes and similar crops. As little heat is required, such houses, if of sufficient height to train plants, are well suited to the purpose.

## SPECIAL POINTS.

By checking the plants it is possible to secure fruit in fifty days from benching. Pollen is not discharged during cloudy weather, and advantage must be taken of short periods of sunshine to pollinate by hand. Since the product is most valuable, it will pay the grower to pollinate by hand regularly between Dec. 1 and March 1. The advantage is a larger number of fruits set and larger, more uniform fruits.

A careful selection of varieties for the midwinter crop is requisite for the greatest success. Those varieties developed under forcing house conditions like Best of All and Lorrillard give the best results. Eclipse gave the largest yields both for the winter and spring crops of 1902. It is not quite so early as Best of All, but it produced the smoothest and most solid fruits.

The yield of Yellow Prince was decidedly inferior to that of the Combination grown under similar conditions. Plants trained to single stems gave a much greater yield per square foot of bench than those trained to three stems, the yield of the former being 1-1/5 pounds, against four-fifths of a pound for the latter. The average yield for the season, 1901-'02, including both the winter and spring crop, was from two to nearly 2 1/2 pounds per square foot of bench, or from seven to almost nine pounds per stem. The spring crop alone yielded four-fifths of a pound per square foot when plants were trained to three stems, and 1-1/5 pounds when trained to single stems.

## Old Home Week in Massachusetts.

The Old Home Week Association of Massachusetts, which was formed on Thursday in Lorimer Hall, Tremont Temple, with Gov. John L. Bates as its president, will, no doubt, do much to cherish the sentiment of love for the spots where the best years of life were passed by the majority of people. No matter how much success or failure we may meet with in the struggle for existence, there is a time to look backward to when the accomplishment of all things seemed possible, and that period is connected with the old homestead, the city, town or village in which we were born. We may see fairer or more progressive places, but the home of our youth is always illuminated in our memories with "the light that never was on sea or land." The motherland never loses its hold on the heart. Its sorrows, its privations, are forgotten in the remembrance of its pleasure when the course of satiety had not rested upon our efforts to derive enjoyment from ordinary prosaic pastimes and occupations.

A return to the old, old home, therefore, renews the freshness of life and bathes our spirits, if not our material selves, in the fountain of youth. It reminds us that there is too little sentiment in our every-day intercourse with one another, and that a hard, matter-of-fact, Gradgrind attitude towards our fellows is not promotive of good citizenship or in harmony with the Scriptural injunction that we should love one another, which means, we take it, that we should be neighborly on all occasions. And where have there been such neighbors as those we have around us in our youth and childhood? In the great world outside our birthplace we find many acquaintances, but few friends, and Daniel Webster recognized this fact when he went back to his native town to defend a case be-

cause the neighbors of his father urgently desired him to do so. He sacrificed his time and his talents without money and without price, in deference to the old home feeling and in remembrance of the time when he was a farmer's boy among the hills of New Hampshire. And it is this same State that was the originator of the old home week, and where it was last year eminently successful. Governor Hollis conceived the idea and brought it to a realization four years ago, and each recurring year has found the interest in the movement greater than the preceding one.

Massachusetts established old home week by a legislative act over a year ago, and the object of the new association is to serve as a parent to organizations that may be formed in every city and town in the State for the observance of the week in July, which it will, no doubt, welcome home returning thousands from the North, East, South and West. The time of annual vacations cannot be better enjoyed by the sons and daughters of Massachusetts, whom fate has sent beyond its borders, than by a return to old scenes and by a renewal of youthful associations.

Any resident of Massachusetts or any person born in the State is eligible to membership in the Massachusetts Old Home Week Association of which Mr. Thomas F. Anderson of Boston is secretary, and Major Henry L. Higginson of this city is treasurer. The leading men of the Commonwealth heartily sympathize with the objects of the organization and will lend it their earnest support. Gen. Charles H. Taylor has labored untiringly to develop an interest in the old home movement here, and fully deserved the unanimous vote of thanks which he received from the association for his laudable and public-spirited efforts last season to awaken enthusiasm among the people.

## Literature.

Such a situation of affairs, as delineated in Basil King's "In the Garden of Charity," is not common, and has seldom, if ever, received clever individual treatment by an author. The scene of the story is laid on the Nova Scotia coast, and the plot concerns the fate of two women married to the same man. One is an illegitimate wife, although a mother, while the other takes it upon herself to care for this unfortunate woman and allow her to pose as the lawful widow of the dead husband. Charity, the rightful wife, married before the husband went away on a long cruise, and for a long, weary time she watched and waited his return. One day a friend brought word that her husband was alive and well, but living as the husband of another woman. At the time, the husband, having seen Charity's informant, took more than ever of the necessity of parting from this illegitimate into which he has entered, and returning to his lawful wife, Hagar (wife No. 2), who has in her veins Indian blood, listens stoically to William Pennland's story of the wrong he has done her and how he must right it, but she refuses to allow him to carry out his plan until she sees that it is hopeless to offer further resistance. Then she rows him out to an island from which place he can take a boat for his destination, but for some reason the boat does not come, and he remains there alone a week. At the end of this period Hagar realizes that Pennland is the father of her unborn child, and she must save him. But it is too late. Starvation and the cold have all but finished him, and Hagar finds him on the island only to drag him home to die. Charity arrives just before the end, and the meeting of the two wronged women over the body of the man who has sinned against them cannot but stir one's compassion. Hagar insists that she is William's wife, and that the baby will be lawfully born, while Charity tries to unselfishly submit. She allows Hagar to wear the mourning, to go to the grave as William's widow, and after the funeral she takes Hagar home with her and cares for her until the baby is born. Then it is that Hagar plans to go away. A party of men come one day and accuse her of killing her father, but Hagar, although not guilty of that awful crime, confesses how she was the cause of William's death. Then it is that Charity feels that they must part. She has borne Hagar's complaints and her constant nagging over her alleged legal rights, but this disclosure is too much. However, after Hagar leaves, she feels it her duty to call Hagar back. The latter had been hard and stubborn, but now she is willing to be Charity's slave, and the baby shall be Charity's baby. The author throughout holds to his simple drawing of honesty life, but he clothes his characters with dignity. The story is pregnant with human interest, appealing strongly to the reader's manhood or womanhood. The characters are clearly developed as the story unfolds, and the background of a rugged coast and deep forest makes an appropriate setting for the battle-ground of human passions. [New York: Harper & Brothers. Price, \$1.50.]

A small volume with a binding of turquoise blue, called "The Turquoise Cup and the Desert," contains two separate stories by Arthur Crockett Smith. The first of these stories, "The Turquoise Cup," is a pretty word picture containing a suggestion of a long since fought, and an impending one, although the sky is clear with the glorious sunshine casting its warmth over every one. The cardinal archbishop is feeding his birds when a visitor comes and desires to purchase the turquoise cup, a treasure of the church. Fair Lady Nora has made its personal possession a necessity would the earl gain her fair hand in marriage. Lady Nora invites the cardinal to dine on her yacht, and a most glorious time the party has, although there is a cloud in the form of the turquoise cup. Fearing it may be stolen, the cardinal, knowing the condition of affairs, has a duplicate made. The earl is at last alone in the church treasury, but he cannot take the cup, although it is within reach of his hands. So he goes and tells Lady Nora. At last, desperate, the earl returns, takes the cup, and goes back a thief, to Nora. The Lady Nora's pride has made a thief of the man she loves. They plan to return the cup, but meeting the cardinal they learn that they hold an imitation, which the cardinal begs Lady Nora to retain as a wedding present. It is a sweet, delicate story, charming and picturesque throughout.

"The Desert" is somewhat of a sterner mould, although it is of the same character. A merchant of the desert desires to prevent the woman he loves from being even taken from him. The father is sending her to a certain woman, Mirza by name, for training in order that she may become a dancing girl. A lawyer tells the merchant that he will have to become a Christian and married by Christian laws. So both change their religion and are married. When they go to Mirza she sees the beauty of her lost prize and discovers—well, that is the exciting point of a story which the reader must learn for himself. Mr. Smith has been fortunate in his artistic conceptions, which are picturesque and above all extremely human. [New York: Charles Scribner's Sons.]

Sargent's drawing of Christian Rudolf De Wet in the latter's notable book, "Three Years War," is a masterpiece of interpretative portraiture and a most fitting frontispiece. The characteristics of this great Boer leader, as shown by his career during the great struggle, stand out clearly in this drawing. The eyes and the mouth express quiet humor and self-control, and there is a general expression of kindness about the face, with a firmness and strength, which are essential to a born leader of men.

De Wet has written a most comprehensive work, giving a complete resume of his service in the conflict, from the time he was called and selected as a commandant. The opening chapters furnish an account of the laws which controlled the burgher, while the greater portion is devoted to the story of the great struggle. "It was at five o'clock on the afternoon of the eleventh of October, 1899, the time when the ultimatum allowed to England expired. The British had not complied with the terms which the South African Republic demanded, the time for negotiation had passed and war had actually broken out," writes De Wet. The struggle has become more and more a struggle of the people. From that day forth every Boer seemed possessed with more than one man's strength and force as he fought with all his power and might. Every one knows of the long and persistent struggle which these two small republics made against the vast armies of Great Britain. In speaking of Cronje's surrender De Wet says the effect upon the burghers was general depression and discouragement, while he himself felt more determined to continue the conflict, notwithstanding the fact that many of the men had wholly lost heart.

Throughout De Wet's memoirs, as was the case of Kruger's, there is constant evidence of honest piety and strong faith. He says: "If the reader is eager to know how it was I kept out of the enemy's hands until the end of the war, I can only answer, although I may not be understood, that I ascribe to nothing less than this—it was not God's will that I should fall into their hands." Paul Kruger's closing paragraph in his memoirs contains the same religious resignation. One is likely to prefer De Wet's book to Kruger's. The latter bears the impress of prejudiced views and unjust suspicions. Each man is of great interest. Kruger's fame is secure as the head of the little republic which Great Britain crushed; but De Wet came out of the struggle with laurels as a great military leader. Kruger's bitterness will probably never be lessened. As for De Wet, he dedicates his book "To my fellow-subjects of the British Empire." While "Three Years War" may not be the generally accepted account of the memorable contest, it will long live as the authentic account from the Boer side, and it is doubtful if a Britisher will be able to write the history of this period with any less prejudice of his side. [New York: Charles Scribner's Sons. Price, \$2.50 net.]

## Gems of Thought.

...He that holds fast the golden mean  
And lives contentedly between  
The little and the great.  
...Feels not the want of pinch the poor  
Nor plagues that haunt the rich man's door.  
...Intellec may give keenness of discernment:  
Love alone gives largeness to the nature, some  
share in the comprehensiveness of God.—John  
Hamilton Tappan.  
...To work fearlessly, to follow earnestly after  
truth, to rest with a childlike confidence in God's  
guidance, to leave one's lot willingly and heartily  
to him—this is my sermon to myself. If we  
could live more within sight of heaven, we should  
care less for the turmoil of earth.—John Richard  
Green.  
...To act—to act quickly—to act up to our own  
best instincts, and highest aspirations, is all we  
can do. It is all that is expected. After that our  
responsibility ceases, and the final result belongs  
only to God.  
...To God, thy country and thy friend be true.  
—Vaughan.  
...One can go through his work well or shirk  
it. One can consider his neighbor or neglect  
him. One can repress the fever-fit of impatience  
or give it wild way. And the perpetual presence  
of such a choice leaves no hour without guidance.  
—George S. Merriam.  
...The air for the wing of the sparrow,  
The bush for the robin and wren,  
But ever the path that is narrow  
And straight for the children of men.  
—Alice Cary.  
...The sun, the moon, the stars,  
Send no such light upon the ways of men  
As one great deed.  
...The poorest outward condition will do  
nothing to obliterate the solemnity from life. Nay,  
if we cannot sanctify our present lot; that, that  
sanctify no other. Our heaven and our Almighty  
Father are there or nowhere.—James Martineau.  
Shakespeare.  
...The truest lives are cut rose-diamond fashion,  
with many facets answering to the many  
planned aspects of the world about them; and

society is always trying in some way or other to  
grind us down to a single flat surface.—Oliver  
Wendell Holmes.

...Do you suppose that God has made the  
rest of the world so beautiful that his love can  
be as easily evolving loveliness everywhere as it  
can go on their shining course, and that if they  
are an intrusion, the only undivine thing in this  
healthy activity of the universe?—Henry Miller  
Foote.

...Every stroke of sorrow that leads into  
light and joy is God putting his hand upon the  
key of that sorrow, to unlock it for all the  
souls whom you may see approaching it, for  
all your future life. It is a noble thing to take  
that key and use it.—Phillips Brooks.

...There have been songs on our hearts, like  
like that on Dighton Rock, are never to be  
except at dead-of-noon tide.

...The comfortable and comforting power  
those who look upon the bright side of life are  
sharing its roses and sunshine and making the  
most that happens seem the best.—Dorothy

## Brilliant.

Like as the thrush in winter, when the snow  
Is drear and dark and all about him  
Sings undimmed, till from his melodies  
Odors of spring float through the frozen air.  
So in my heart, when sorrow's icy brother  
Is bleak and bitter, and its frost is strong  
Leaps, defies despair and death,  
A sunlit mountain of triumph  
Sings on, sweet singer, till the violets come.  
Oh, if my lips, which are forever dumb,  
Could sing to men what my sad heart has  
Life's darkest hour, when you are young,  
Life's blackest frost would blow away.

The living, loving spirit  
Will find its spirit kin;  
When heart doors swing at love's light touch,  
Love surely enters in;  
Who has his soul to others  
Shall know the exile's doom;  
For him whose soul hath winter  
In vain spring sends her bloom.  
—From the German, by Helen Watterston.

In solitary rooms, when dusk is falling,  
I hear from fields beyond the haunted town-  
tains,  
Beyond the unpenetrable forests,  
I hear the voices of my comrades singing.

Home! home! home!  
Strange ghostly voices, when the dust is falling,  
Come from the ancient years; and I remember  
The schoolboy shout, from plain and wood and  
river  
The signal-rally of scattered comrades, calling,  
Home! home! home!  
—William Canton.

We sigh for the touch of a vanished hand,  
And we think of the friends that are gone,  
But what of the friends that about us stand,  
And the touch of the hand that is here?  
—John Troland.

Most men know love but as a part of life;  
They hide it in some corner of the breast.  
Even from their kindred, when they rest  
In the brief pauses of that daily strife,  
Wherever the world might else be not so free,  
They draw it forth (as one draws forth a toy)  
To soothe some ardent, kiss-exacting boy.  
And hold it tight, as sister, child or wife.  
Ah! me! why may a twinge and life be gone?  
Why walk we thus alone, when by our side  
Love, like a visible god, might be our guide?  
How would the marts grow noble and the street,  
Worn then a golden court-way of the feet.

Notes and Queries.

WEAVING WILLOWS.—"Senter": All the trees  
in this country of the kind which you refer to  
are said to be descended from a slip planted by the  
step-son of George Washington. Young Custis,  
as a member of Washington's military family,  
sometimes carried messages, under a flag, be-  
tween the belligerent commanders. In this  
service he became acquainted with a young  
British officer who, like others, had come over  
with an impression that the "rebellion" would  
be speedily crushed out, and that he would then  
settle on the confiscated lands of the rebels. He  
had even brought a twigs and a willow sapling  
near Pope's villa, at Twickenham, carefully  
wrapped in oiled silk. As his visions of a castle  
in America faded away he gave a twig to John  
Parke Custis, who, on his return to Abingdon in  
the spring, planted it near his house. It grew  
and flourished.

ROUGH RIDER.—"M. L.": Col. W. F. Cody,  
"Buffalo Bill," has been credited usually with in-  
venting the term you mention, but a Washington  
gentleman says, without any foundation, that the  
word was first used by a certain man, who is  
known as "Ouida." He says he found it in  
her story "Idalia," which was published at least  
thirty years ago. "Rough Rider" in this book is  
used twice, with all the significance it acquired  
during the Spanish-American war, in correct  
speech.

NEW YORK'S PROPOSED DESTRUCTION.—  
"Historians": General Washington did suggest  
the burning of New York as a war measure, after  
the disastrous defeat of the American troops on  
Long Island. As is shown in one of his official  
letters to Congress on Sept. 2, 1776, which con-  
tains the following passage: "If we should be  
obliged to abandon the town, ought it to stand  
as winter quarters for the enemy? They would  
derive great advantage from it. It is a fine  
and much property destroyed or destroyed. It  
is an important question, but will admit of but  
little time for deliberation. At present, I dare  
say, the enemy means to preserve it if they can.  
If Congress therefore should resolve upon the  
destruction of the city, the resolution should be  
found secret, as the knowledge of it will make a  
capital change in their plans."

A NEW FORM OF ENERGY.—"Ray": Gustave  
le Bon, who has made many experiments  
with cathode rays, rays and the various forms  
of radio-activity, and the various forms of such  
subjects are well known, expresses the opinion  
that all these phenomena are particular aspects  
of a new form of energy, which although its mani-  
festations have but recently been recognized, is  
as common in nature as electricity or heat. He  
also thinks that closer study along these lines  
may reveal to us a connecting link between  
matter and energy.

ANIMAL INTELLIGENCE.—"B. O. S.": The  
forecast of birds is, as you say, remarkable. A  
natural scientist, whose name I have not at hand,  
has been spent among animals, says that he has  
many of the ways of human beings, even the  
charitable institutions, athletic sports, laws of  
conduct, and so on. His statements may be  
overdrawn, but they are certainly interesting.  
Many migratory birds are certainly interested  
in the human world. They are certainly inter-  
ested in human buildings and know where to  
find them in order. Parrots and cranes have  
organized police and detective forces to pro-  
tect themselves and their belongings from the at-  
tacks of other birds. Cranes, also, in searching for  
new feeding ground, always send one of their  
number ahead to reconnoitre. It is noticed, how-  
ever, that if the report of this bird is not  
favorable, a general exodus is not made. It is  
until two or three other cranes have been  
detail to verify it. A distinct effect  
prevails among white-tailed eagles on their  
feeding expeditions. The one who discovers the  
never touches it until he has called all the  
others to him, and then the older eagles are  
loved to satisfy themselves before the younger  
generation come in for their share. Many  
species of song birds take a keen interest in the  
other families of feathered folk, and are  
singing matches and solo dances. The larks, es-  
pecially, are fond of gathering together to  
perform odd little hops and runs, which are  
entirely without any amusement or purpose.  
In the matter of chess, the naturalist would  
have witnessed many instances of orphaned birds  
receiving the tenderest care in the nests of stran-  
gers, and certain tribes of monkeys have a  
trained corps of nurses for attendants on the  
sick or wounded. There is a species of rabbit,  
too, which has a regular ambulance system by  
means of which a colony whose burrow has been  
plowed under or stopped up are dug out and  
removed to safety by this department of a  
neighboring colony.



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## Poultry

## Incubator Management.

As the season of the year when the incubator ought to be working full time, it is not enough to get the chickens out early.

The capacity of two hundred to three hundred eggs will about fill the bill. The incubator should be no smaller than two hundred eggs, and are not to be recommended, as they are easily kept at even temperature.

The incubator is filled about the first of April, and again the first of April, enough eggs ought to be secured, with the help of many hens as volunteer at the same time.

The worthless incubators are in the market, and there is need of caution in the selection of a machine. It is made sure it is one of those no-good makes or a good machine of a good make. A visit to somebody who has used incubators for some time will secure light on the best makes.

Before the machine is filled with eggs the owner should run it empty for a few days, meanwhile making a thorough study of its workings and of the directions which the manufacturer will supply. A cellar is by all odds the best place. A single room directly under the roof is the worst place, as the rapid changes of temperature make it impossible to keep the machine at even heat. Take out one of the cellar windows for ventilation, but replace it nights and in cold weather. Have the incubator level. Use the best grade of kerosene. The correct temperature is 103°. Two or three degrees above or below for a time does no great harm, but higher temperature is more injurious than lower. Eggs will sometimes hatch after staying at 110° or 112° for some hours, but in the writer's experience such chicks are weak and not worth keeping. The accident happened by somebody placing an article across the regulating bar, preventing its action. Children should be kept out of the incubator room.

In operating the machine it is better to understand the principles and be guided by common sense than to depend blindly upon details given in the printed directions. Frequent use of the thermometer will show how things are going. The beginner should start a hen at the same time with the machine, so that eggs may be compared with those under natural conditions. The air cell of the egg tells a great deal about a fertile egg. It should be kept at about the same size in the eggs under the hen. Ventilation helps dry out the egg and increases the size of the air cell. Moisture swells the contents and lessens the air cell. By opening the vent holes, which should be done when the water is peeped, the cell may be kept about right, and with a fairly even temperature a good hatch of vigorous chickens may be expected if the eggs were fertile. In a cellar early in the season there will usually be no need to add moisture.

Use a regular incubator thermometer and keep it on a fertile egg after the eggs have been tested, which should be done toward the end of the first week. The clear infertile eggs will be all right for cooking purposes. Fill and trim the lamp each day. Use a new wick for every hatch. Turn and shift the eggs twice daily. A good deal depends upon the management of the lamp, as the regulator will not control beyond a few degrees. Keep the flame as low as possible for the required heat.

The first batch of eggs should not be too valuable, as the beginner is likely to make mistakes which affect the number and condition of the chicks. There is a temptation to try and raise chicks which have cost so much trouble in hatching, but they should be killed without hesitation. Nothing will run out a strain so quickly as raising feeble birds. Only a few of them will live long anyway, and the operation is a long one in every way. The complaints against incubator chicks are almost wholly due to raising chicks hatched at high temperatures or other wrong conditions.

Incubators well and successfully managed will hatch good, strong chicks; no others should be kept at all. A great deal can be learned in the first three weeks experience if the egg tester is used every day or two, comparing eggs under hens with those in the machine, and breaking a few eggs during the hatch for closer study.

## Poultry and Eggs.

The market for poultry is dull with a tendency slightly downward, but practically unchanged for most lines. There is plenty of fresh-killed stock and also frozen lots if wanted. Fresh turkeys are in light supply, but few are wanted at this time. Fancy broiler chickens bring 25 to 30 cents per pound. Live fowls sell nearly as high as dressed this week, which is a Hebrew holiday.

The New York market for live poultry received the top notch last week and was quite broken by arrivals early this week of the active or forty cars. Latest reports from New York gave the market at 15 cents per pound. As this is the time of the Jewish holiday, prices are likely to be steady the next week.

A poultry dealer, now in Boston, says that chickens are scarce in the West. He does not expect an improvement at the present time. When he left home chickens sold for 15 cents, pigeons 14 cents, geese 7 cents, ducks and 10 cents per pound. Attending to dressing, packing, shipping and freight, these prices left an extremely small margin for the shipper. This dealer sometimes sends 200,000 pounds of poultry a year to Eastern markets, mostly in the fall.

The markets of the country are in an unsettled condition, prices having to do with each other in the different parts of the season. They are ranging somewhat higher than at the same time last year. A condition supposed to be due to the snows of a few weeks ago, which seems to have been the laying greatly. Dealers say the conditions always lead to a heavy supply later on, and they expect eggs to be heavy and cheap during April. It is said that it is very reason to expect the product to be very heavy this season. Supplies had begun to arrive before the



WHITE PINE PLANTATION, THINNED AND PRUNED.  
See descriptive article.

cold weather, which indicated heavy production, and included arrivals from new territory.

The cold-storage markets present an interesting study this season. Last year's operations were heavy, and it is said that a great deal of money was lost. It is said that those who were bitten in the egg speculation last year probably will be very cautious in renewing the experience. The report is that at least 300,000 cases were stored at a loss. Dealers think that this consideration will seriously affect the market, for fresh eggs will not be put into storage in such quantities, since fewer dealers will care to go into the business extensively.

Another item which they say will work against high prices for spring eggs is the comparative low price in beef. Last spring both beef and eggs were high, consequently, on equal terms. This year eggs will have to sell a little cheaper to compete with beef.

One Boston dealer says he will not put away any eggs unless he can buy them at 11 cents. Of course the market for storage eggs only relies on the receipts of fresh eggs from the West, but when these are cleaned up by the storage men, the market is much better for Eastern fresh eggs. At present eggs are higher in proportion in the West than in Boston and New York.

## Horticultural.

## Hay Trade Fairly Active.

The condition of the hay supply and demand is fairly well balanced in the leading markets of the country. Arrivals of hay are light and keep well cleaned up. Consumers are inclined to buy in small lots, owing to high prices. Some expert prices will decline as soon as the freight lines from the West are able to handle as much hay as is offered there. Reports from New York indicate there is some increase in receipts, and the market has declined about \$1 per ton since last week. Other markets of importance report that quotations hold about the same as last week, and the general situation is not greatly changed.

At Boston the receipts are light, trade improving and the prices, although not much changed, are reported to hold close to quotations. There was an ample supply of low grades, which are being worked off as fast as possible, consumers being obliged to use them on account of the scarcity of No. 1 and choice. Receipts for the past week at Boston were three hundred cars, of which sixty-one were for export. These figures compare with 560 cars last year, of which about four-fifths were for export. The supply of choice long rice straw is scanty and sales are really made, but stained and off-grade lots are sold with difficulty.

Receipts at Providence have been moderate, for the fall is dull and no special change in the conditions. At the Western markets the supply and demand is about equal and trade quiet. In the Southern markets receipts are also light, but demand at New Orleans, Richmond and Baltimore is very active. There was a great deal of hay in the Canadian markets, and holders would like to ship to American cities, some of them already having obtained a market, but they are not able to start it moving, owing to the want of cars on which to load it.

The following table shows the highest prices in the markets mentioned, as quoted in the Hay Trade Journal: Boston \$19.50, New York \$21, Jersey City, \$21, Brooklyn \$21, Philadelphia \$18.50, Providence \$19.50, Pittsburgh \$ 8.50, Buffalo \$17, Kansas City \$13, Duluth \$11.50, Minneapolis \$11, Baltimore \$19.50, Chicago \$14, Richmond \$19.50, St. Louis \$15, Cincinnati \$16.75, Nashville \$19, New Orleans \$20.

## Sag in the Grain Markets.

The tendency in the grain market, including corn, wheat and oats, has been downward during the past ten days. The position of wheat buyers appears due to the favorable reports of the condition of the coming crop. Not only in this country, but for the most part, the conditions seem to be very favorable so far, the only drawback being complaints of winter-kill in Germany. It appears also that a good deal of wheat is still unsold and in the hands of the growers, who are generally so prosperous that they have not been obliged to sell in a hurry to raise money. They will market their wheat whenever they think conditions are favorable, and this fact will tend to prevent wheat rising above a certain limit. Good prices will bring out the reserve wheat and steady the market. The more wheat in the hands of farmers the less chance for speculators and the better usually for grower and consumer.

The export movement of wheat last week reached 3,400,000 bushels. Boston sent off over 400,000 bushels of corn, 120,000 bushels of wheat and 11,000 barrels of flour. New York, Baltimore and the Southern ports handled most of the remainder, but Portland shipped an unusually large amount of wheat, 465,000 bushels, and St. John, N. B., 225,000 bushels.

Exports of corn are large, foreign buyers being eager to purchase after a year of scarcity. There is a good deal of soft and low-grade corn on the market, which fact tends to favor buyer of bag meal, such grade being bought at low rates and ground. Low prices in Boston are somewhat irregular, but the average is a point or two lower

than when last quoted.

Of the 2,975,500,000 world's corn crop in 1902, and against 2,066,000,000 in 1901 and 2,574,500,000 in 1900, United States produced eighty-four per cent., against only 72.5 per cent. in 1901, and eighty-one per cent. in 1900. Argentina is the only country showing gain in corn yield over 1901, and the increase is only 18,000,000, viz.: 96,000,000, against 78,000,000.

A comparison of the wheat receipts at eight winter-wheat and spring-wheat markets, for three seasons, to the end of January, shows that this year the receipts were considerably in excess of either of the two preceding seasons, the total being 189,661,368 bushels, compared with 174,483,763 bushels to the end of January, 1902, and 153,014,298 bushels to the end of January, 1901. Trunk-line shipments of grain of all kinds from Chicago for the first five weeks of 1903 amounted to 13,387,000 bushels, compared with 11,673,000 bushels in 1902 and 12,194,000 bushels in 1901. The provision shipments from Chicago are this year notably in excess of the two preceding years. For the first five weeks of 1903 there were shipped 135,935 tons, compared with 127,948 tons for the corresponding period of 1902 and 104,848 tons for the same week of 1901. The export flour movement from Minneapolis for five weeks ending with January amounted to 47,000 barrels, compared with 22,175 barrels for the corresponding period in 1902 and 31,705 barrels in 1901. The total shipments from this point, however, have not been quite equal to those of the corresponding period in 1902, though largely in excess of those of 1901.

Receipts of grain and flour at the Atlantic seaboard for the first month of 1903 are, as a rule, much in advance of those of January, 1902. For the four ports of Boston, New York, Philadelphia and Baltimore, January arrivals from the interior were 22,217,827 bushels, including flour reduced to bushels, compared with 18,432,409 bushels in January, 1902, making a gain of 3,785,418 bushels, or seventeen per cent.

## Management of Farmers' Meetings.

The Institute idea, that of a series of meetings more or less under State management, and including expert teaching and general discussion, seems to have originated in New England. The project was under consideration by official heads of Massachusetts agriculture in the early fifties, the system having been suggested by the existing teachers' institutes managed on a similar plan.

The idea having been so long under development in the section named, we should naturally expect to find there its highest, best development, and such may be the fact in certain directions. The instructors are, with few exceptions, competent and experienced to a high degree, and the meetings are usually managed to successfully draw out the experiences of good local farmers.

It is probable, however, that something might be gained by study of Institute work as conducted in States like New York, Pennsylvania, Wisconsin, Michigan, Illinois and Iowa, where the great emphasis has been placed on this line of work, and where in some cases the Institute idea seems to be developing very fast, until the meetings are becoming little agricultural colleges on wheels, with the best special instructors and the best portable apparatus that the State has in its possession. The difference in the situation must, of course, be taken into account. The great farming States will naturally spend more money in the later section of the Institute work, teaching the farmers than will a manufacturing region like New England. The work in the latter section is limited by money considerations as well as by lack of universal interest in farming matters. Yet something available might be gathered from a study of the situation farther West. Institute managers of the various States should get together and compare notes. An Institute of Institutes is needed to pass along good ideas and to develop new ones. It is to be feared that but few of those who have the executive in Europe also the conditions seem to be very favorable so far, the only drawback being complaints of winter-kill in Germany. It appears also that a good deal of wheat is still unsold and in the hands of the growers, who are generally so prosperous that they have not been obliged to sell in a hurry to raise money. They will market their wheat whenever they think conditions are favorable, and this fact will tend to prevent wheat rising above a certain limit. Good prices will bring out the reserve wheat and steady the market. The more wheat in the hands of farmers the less chance for speculators and the better usually for grower and consumer.

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inter and never hear of the meeting, no sufficient general notice being given. It is asserted that sometimes the meeting is so hastily and almost carelessly arranged that the impression is conveyed that the local managers are thinking more of the State bounty, which depends on the holding of three meetings per year by each society, than of the wishes of the local managers.

If these meetings were wholly directed from the central office of the board in Boston, it would be possible to arrange speakers and dates for the whole season and to prepare a printed list of the same, thus allowing ample facilities for the news to reach all interested farmers, and also insuring more careful preparations and a better distribution of speakers. Of course the wishes of the local managers would be followed as closely as possible in these particulars, but the need of a central management of some kind is evident, and the wonder is that the present disjointed system has continued so long.

## Management of White Pine.

The white pine probably stands next to the chestnut in promise of profit. It reproduces itself freely wherever given a chance, and thrives on poor and sandy soil. This species combines rapidity of growth with high value of wood, two things not commonly found in the same tree. It is true that the highest quality of timber is only found in old trees, but even younger trees possess much value. Its most frequent use when young is for box boards. For that purpose the trees may be harvested and yield a good return at forty or fifty years of age. The tree is found over the entire Northeast, though it is much more frequent, and thrives better, farther inland than near the coast. It does not reproduce itself well on recently burned land, and young seedlings are generally unable to bear full exposure to sunlight. Though it often does make good progress in spreading over open pastures, it is not equal to the pitch pine in this regard. The one great drawback to this species is the injury done by the top-borer, which attacks and destroys the leader of young trees. It is a common sight to see in summer young pine trees which have turned brown at the tip. This necessitates the forming of another leader, which produces a crook in the trunk. This naturally interferes with the value of the tree for lumber, though in time the effect of such injury may be partially or wholly outgrown. The only remedy suggested is to cut off and burn these dead tips before the insect has escaped from them. If this were carefully done a great deal of harm would be prevented in ensuing years. Such a remedy is more feasible than it at first appears, although one must ever bear in mind that in forestry matters the return will not warrant any extended outlay.

Although nature does her own pruning in the forest, the white pine may be greatly benefited by pruning of the lower limbs as they can be spared. Even though killed by the dense shade, their resinous properties enable them to persist on the tree for a long time, producing a knot which extends through a large part of the tree. If cut away when no longer needed, all succeeding growth will be clear, and even the smallest knot at the centre will be wholly preserved.

About two-fifths of little Rhode Island is covered with forest growth, but much of it is of no real value for timber purposes. Very much waste land has no tree growth at all. To determine how far this bare land might be profitably planted, what species promise most, how they should be started, and the numerous other questions connected with forest management, lie entirely beyond the possibility of the present inquiry. To satisfactorily answer these questions would demand a State bureau of forestry, with a careful and elaborate study of the problems involved.

One careful financial record of a planted forest was kept by Zachariah Allen of Smithfield, R. I., which, according to Mr. L. W. Russell, "was begun in 1820, and the debtor and creditor account closed in 1877, a period of fifty-seven years. Mr. Allen selected for his tree-planting experiment a tract of forty acres of worn-out pasture land upon a bleak hillside in Smithfield. He planted on this land various forest-tree seeds. All expenses, including valuation of the land, up to 1877, were \$3894.33. The total income, including wood left on the lot, was \$6348.06. Gain, \$2543.23, equal to 6.52 per cent. per annum on the original investment for fifty-seven years. This gives no credit for improvement to the land nor for the benefit rendered in conserving the rain and snowfall for springs and streams. There are lessons of value in the thoughtful experiment of Mr. Allen." Mr. Russell included that he thinks the above expenses and interest on land valuation, and everything paid out at six per cent, the then showing the possible returns from woodland.

The best known instance of a planted forest in the State is that on the farm of Mr. H. G. Russell of East Greenwich. This plantation is located on a cove in Narragansett bay, being directly opposite the village of East Greenwich. It is subject to the full influence of proximity to the salt water, but not

to the strong sweep of wind of the coast along the open ocean. A large number of species have been tried, particularly among European varieties. White oak is the favorite tree, and is being grown in nearly all of the plantings, but conifers are first established. White pine was largely planted at first. It proves to be a good tree to establish itself on shifting sand and nurse other trees. Of this page is shown the handsome grove of white pine on the Russell farm. The illustration is reproduced by permission of the State experiment station, which has lately been making special investigation of the forests of Rhode Island, with a view of calling the public attention to the importance and business possibilities of woodland development. Kingston, R. I. F. C. CARD.

## Soap in Shaving.

In spite of the fact that those who use the razor frequently cut themselves, yet it is rarely that anything more serious than a cut follows, the slight wound generally healing quickly, and the risk of septicemia arising in this way would seem to be almost nil. In the majority of cases, therefore, it is clear that the razor blade must be bacteriologically clean—i. e., free from septic matter—which may be attributed to the fact that probably it is dipped into hot sterilized water before use or else that the soap is either antiseptic. The latter explanation seems the more probable of the two. The amount of soap rubbed on the skin is considerable if the shaving is to be in any degree comfortable, and soap has considerable antiseptic power, a six per cent. solution being sufficient to destroy the typhoid bacillus. There can be little doubt, therefore, that the skin is rendered sterile by the liberal application of soap, and this fact is in favor of any out that may be made remaining healthy and without any serious consequences.

In a word, soap in the operation of shaving not only facilitates the process, but plays the same valuable role when the shaver is unlucky enough to cut himself, as does the antiseptic in surgery.—London Lancet.

Freight shipments on the Bangor & Aroostook Railroad of northern Maine, in the six months ending March 1, show a decline from the corresponding period of 1901-02, largely owing to the lack of car, especially heater cars. For the six months ending March 1, the road carried out of Aroostook County 1,263,227 bushels of potatoes, 8,801,017 pounds of starch and 34,761,000 pounds of hay. The potato shipments to date are about thirty-two per cent. of those of last year at this time.

The record of Fred Duff of Cheshire, Ct., who picked forty-five barrels of apples in one day last fall, is said to be surpassed by George B. Whelan, who claims to have picked in one day last fall on a farm near Leavenworth, Kan. Because of the unprecedented prevalence of glanders among horses in New York quarantine may be so strictly enforced as to work great inconvenience to owners, particularly to those doing heavy trucking business. A careful inspection has been ordered, and a quarantine has already been placed upon one stable in which one hundred horses are boarded. Several other large stables are under suspicion, and one of the largest milk dealers in the country may have his stables closed.

Hamburg and Berlin grain importers are renewing their complaints regarding the quality of American corn. The present complaints refer to New Orleans shipments as being mixed. The importers threaten to exclude New Orleans certificates unless the shipments improve. Dr. Austin Peters, chairman of the State Board of Cattle Commissioners, found a case of foot and mouth disease at the Union Market, Watertown, the first of this week. This is the first case to be discovered in this State since Feb. 1, when a case of the same kind was reported by Robert French of Bedford, N. H., to the Brighton abattoir for slaughter. Several more cases have since been in the section from which these cattle came.

Reports of loss of cattle from starvation continue to come from the plains of western Kansas and eastern Colorado, where ranchmen have not provided their herds with shelter and feed. With herds have perished since the beginning of food. Twenty inches of snow cover a region where the only feed for many herds is the buffalo grass. It is estimated that more than 10,000 head of cattle have perished in recent storm. Thence, the seat of collegiate science of highest order, suffers as no other city has ever suffered from impure water supply, and already twelve Cornell students have died from use of the water.

New York State has the largest normal school system in the world. The State has twelve normal schools upon which \$10,000,000 have been expended, and from which twenty thousand teachers have been graduated.

The number of measures introduced in the New Hampshire House of Representatives this session is slowly creeping upward to the six hundred mark, having now reached the large total of 555.

The bill to provide a bounty on hedgehogs successfully ran the gauntlet of the House, and that body also looked with favor upon the scheme to appropriate \$2000 for the growth and distribution at cost within the State and at a profit outside of New Hampshire, of forest seedling trees, the cultivation to be carried on at the college of agriculture. This is another of the forestry commission's measures.

The Massachusetts Agricultural College invites the public to attend an Institute for consideration of subjects connected with milk and butter production on March 18, in the college chapel, Amherst. The volume, addressed by a lecture by Prof. F. D. Sheldon, "Twentieth Century Dairying," followed by discussion and question box. At noon hot dinner will be served in the new dining hall at twenty-five cents per plate. In the afternoon at one o'clock, lecture by Prof. J. W. Sanborn, "The Acre Product of Butter," followed by discussion and question box. During the forenoon, from nine-thirty to eleven o'clock, dairy students will operate the various separators, churns and butter workers, and give a practical illustration of the Babcock test. Farmers are invited to bring in samples of milk and cream.

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## THE ANGORA CAT.

A Superior Edition, Beautifully Illustrated, Telling How to Select, Breed, Train and Manage Them.

Only book of its kind. Contains most important chapters on The Origin, How to Train, Care for Pleasure and Breeding, Proper Food, Breeding and Mating, Exhibition and Transportation, The Bench, Washing and Grooming, Diseases, The Correct Type, Differences, and Interesting stories of how they eat, drink, play and sleep; in fact, everything about them. Over thirty-five full-page illustrations from life. "My Cat Tom," "A Cat Letting a Rat," "A Forgotten Prisoner," "Her Wants Supplied," "Attending to Cats," "The Homestead Cat," "A Cat Story," "The Subway Cat," "A Hospital Cat," are all interesting tales. The book contains a complete and excellent treatise on the cat, forms a delightful gift.

No author could be more justified in speaking on his selected topic, as one having authority, that is Mr. James in speaking as an expert of the Angora, for thousands of beautiful specimens of these lovely creatures are not only his own, but their excellence, to the skill, care and knowledge of this well-known breeder. The book contains all the much wanted information as to the diet and general care, in fact, there is no indispensable in any owner of one of the valuable and beautiful Angora cats.

It comes from a practical breeder. Prospective breeders of Angoras will find this book interesting reading. "Twenty Centures." Those who are lovers of cats will find much that is interesting and instructive in the book. "School Education, Minneapolis." It is a book which those who are fond of cats will be glad to read.—George T. Angell, in Our Own Boston.

James Brothers, Publishers, 220 Washington Street, Boston, Mass.

## Allen's Lung Balsam

The best Cough Medicine.

**ABSOLUTE SAFETY**

should be rigorously insisted upon when buying medicine, for upon that depends one's life. ALLEN'S LUNG BAL-SAM contains NO OPIUM in any form and is safe, sure, and prompt in cases of CROUP, COLDS, deep-seated COUGHS. Try it now, and be convinced.

cream to be tested. The corn which is the entire product of fourteen plots longest under experiment in Amherst will be on exhibit, and if time permits Professor Brooks will give a talk on the practical lessons to be drawn from the results in this experiment.

The time limit for the reception of private and special bills by the Maine legislature was extended to March 10. The committee on appropriations and financial affairs voted to report "ought to pass" on the following resolves: Sebago Lake hatchery, \$6000; Rangeley Lake hatchery, \$6000; for improvement of State roads, \$40,000 each year; in aid of roads in Indian township, \$800 for 1903 and \$600 in 1904; salary, county attorney, Kennebec, \$1200; salary, county attorney, York County, \$1200; Passamaquoddy Indians \$225 for 1903 and \$800 for 1904; for the Indians, \$12,253.70 for each year; second appropriation bill for 1903, including judges' salaries, already approved by governor, \$194,650; Maine industrial school for girls, for current expenses, \$11,000 for each year.

A circular has been issued by the Massachusetts State Board of Agriculture advising the cities and towns infested with gypsy moth and brown-tail moth to buy creosote for distribution and give it to the inhabitants for the destruction of the insects. The gypsy-moth eggs are easily killed with it in the present stage of its development, a single application being enough. Some cities have already adopted such methods and found them so practical and effective that the State board decided to recommend their general adoption. To the municipalities which may expect that the State will take care of the insect question this year the board explains that even if the Legislature passes an appropriation this session for the purpose, the money becomes available so late in the year that no very effective work can be done with it before another season. Something needs to be done immediately to preserve the trees, for the green trees cannot survive a single defoliation, and the others are weakened by every attack from the moth and will die after the second or third loss of their leaves.

Large sums of money, perhaps amounting to \$100,000, will be invested by Chicago capitalists in ginseeng raising in Wood and Juneau counties this year. Several farms near Armenia and Nekoma have already been purchased, and many ginseeng gardens will be planted in that locality in the spring. It is said that the ginseeng growers have formed a trust and that they have options on ginseeng gardens in Wisconsin, Michigan and Missouri. Ginseeng roots are worth from \$3 to \$20 a pound in the United States and from \$20 to \$200 a pound in China, and crops valued at \$25,000 have been raised from a single acre of ground. The seeds sell at \$20 a pound or one cent a seed.

The latest estimate places the total number of apple trees of bearing age in the United States at something over two hundred million. This is nearly three times to every person. These trees yield more than 175,000,000 bushels. Not all these apples are consumed at home, for in years of full crop more than three million bushels go abroad. Yet the apples kept at home are more than two bushels to every adult and child. We are a nation of a pie eaters.

Immigration figures at Boston for the month of February almost double those of the corresponding month in 1902—2758 for the last month, 1902, 1447 year ago. By far the greatest proportion of the February arrivals were Italians, with a fair sprinkling of Portuguese. In the year thus far, beginning July 1, 1902, 33,760 immigrants have been admitted at this port. In the corresponding eight months of 1901-2, the figures were 15,791, showing a gain of 18,000 immigrants, in round numbers, in the present year. These figures become significant when it is realized that 1901-1902 was Boston's banner year up to date.

Very active since the beginning of the year. In reply to inquiry, Agent Harwood says that up to Wednesday night of this week twenty-six cases for violation of the oleo, renovated butter and milk laws have been pushed through, and of every case has been won for the State, this record having been made since he assumed charge of the work.

Passenger trains on the Central New England road began running Monday, across the famous Montague farm on the Tisbury (Ct.) branch. As the result of the inspection by railroad commissioner Seymour, of the three hundred feet of new track across the farm, and also the tracks on either side, permission was given to use the tracks for traffic. The passenger trains will hereafter use this track exclusively and will abandon the "loop," which, however, will be used for some time to come by the freight trains.

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For Dogs, Cats, Horses, Cattle and Sheep. All Skin Diseases they are subject to can be cured by this valuable remedy. Also

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## LIGHT BRAHMAS

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BUFF AND WHITE COCHINS,

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# MASSACHUSETTS PLOUGHMAN

TELEPHONE NO. 3797 MAIN.

The report does not say whether or not the Sultan of Morocco has purchased his new estate in the neighborhood of Squire Croker.

It is now up to the immigration commissioners to find a quick and efficient method of detecting a dangerous doctrine in process of being smuggled into the country.

Not even the fact that candy was among the spoils could reconcile the honest young woman who was recently compelled by her husband to assist in a burglary.

Another original has passed away. This time it is the original Uncle Tom. The original Topsy, if equally long lived, is still with us—and not much past middle age.

What a patriot the man who votes an indefinite number of times at a single election might claim to be, if it wasn't for the dollar invariably found sticking to each vote.

The discovery of four mastodons at a time can hardly fail to lend excitement to the process of railroad building in Virginia. Also it suggests the possibility of a prehistoric circus.

The discovery of gold in the bed of the Missouri comes up with the approaching opening of the St. Louis Fair. One can wait a while and then take in the exposition on his way to the digging.

A "newsy, spicy, harmless, gossip, social, educational, charitable and political sheet" is the latest addition to local journalism. And the sheet is spread entirely by women into the bargain.

Temperance advocates will be interested to learn from a recent advertisement that there are 3333 centenarians in the United States, and that most of them owe their ripe old ages to a certain brand of whiskey.

Uneasy are the heads that expect to lie in Beverly during the nights of approaching summer. And it must be admitted that the roads about Beverly Farms are much more beautiful than they would be with the addition of trolley cars.

A large proportion of playgoers all over the country will involuntarily thank Mr. Willard for throwing cold water on the enthusiasm of a conversation that was being carried on the other evening by certain members of his Washington audience.

Boston will now have an opportunity to study the incidental demoralization of the children performing in a local theatre by the over-fulsome remarks of the press agent. The children of the State need a Society for the Prevention of Unwholesome Flattery.

Somebody advises planting sugar maples. To obtain much profit from an orchard of this kind requires a waiter uncommonly patient and long lived. But as a gift and memorial to pass on to children and grandchildren, what for the cost could be more effective?

Doesn't the Prussian government rather compliment the taste and critical ability of its police in deciding, against the forbidden production of "Mary of Magdala," the manner in which dramatists may handle Biblical subjects is a matter for police supervision?

Survivors of the fur-bearing animals will doubtless be glad enough when the present winter is over. It has been a hard season for the whole fur-bearing tribe and with no immediate hope of the formation of societies for the prevention of depriving them of their winter overcoats.

England objects to the introduction of the American "quick lunch." But then, England has no real pies, as America knows them, and, therefore, needs no excuse for absorbing them in unlimited quantities, on the ground that they can be taken quickly and without interfering with business.

On general principles aestheticism will be inclined to support the gentleman who has resigned the musical directorship of Tuskegee and returned to the simpler duties of a parlor-car porter. Even as it is there are too many persons in the world whose vocalization is strenuous at the expense of melody.

Small capital will go further in profitable farming in the East than it will in the West, asserts Col. J. H. Brigham. It is probably true that nowhere else can good farms be bought for the value of the buildings, and almost wholly on credit. It is surprising that more of our workmen should not seize the opportunity and become farm owners.

The benediction of the Pope has been photographed and twenty-five per cent. of the returns from a sale of the cylinders is to be devoted to charity. Modern business offices can attach the benediction to the phonograph apparatus used in dictating the daily letters and so open the daily routine with an authoritative expression of general good-will.

Maine dealers in cattle feed object to a special tax proposed to cover the cost of taking and testing samples of their goods. The situation is somewhat as if farmers were to be taxed so much per quart to pay for milk tests made by State inspectors. Such tests are plainly for the public benefit and should be paid for by the State, the cost being a comparatively trifling item.

The Hopedale millionaire who has been searching for truth is in a fair way to have it possibly thrown at him in junk. If the opposition keeps its dignity, there's no reason why a good deal of the somewhat talked-about volume should not be considerably demolished. Truth is not usually found by staying at home and writing out one's own impressions of it.

So the Tar is contemplating the establishment of Y. M. C. A. buildings for soldiers of the Russian army. And yet there are still persons who do not believe that he is sincere in his attitude toward universal peace, although the number has probably diminished since the recent promulgation of reforms vastly more far-reaching than any Y. M. C. A. movement in the standing army.

Prospects appear good for a \$500,000 State appropriation to build more first-class roads in Connecticut. This will be the largest amount yet, and the annual increase has

been regular since the first appropriation of \$75,000. The amount proposed this year together with the proportion of cost paid by the towns, ought to provide for quite a stretch of new construction. At such a rate, Connecticut roads would soon become the best in New England.

All signs point toward co-operative selling of special crops. The milk producers' union is a somewhat close approach to a crop-selling organization. The tobacco growers of the Connecticut valley propose to control the marketing of their product by a very close and highly centralized association. Other specialties like cranberries, orchard fruit, creamery butter, are likely to follow suit as soon as a good working plan can be developed and tested.

Professor Britton seems to believe that a few object lessons in spraying will do more good than a lot of compulsory legislation on the subject. An unpopular law is generally so badly enforced that its general effect may be worse than no law at all on the subject concerned. Fruit growers are certainly not yet ready for adoption of compulsory spraying. A traveling experimental outfit under expert management would do much toward showing the practical orchardist just what these much-talked-of ideas on spraying are worth to him.

No acre is so well appreciated as the one the owner rescued from a swamp; no tree so interesting as the one he helped his father plant; no house so homelike as the one planned by man and wife, and cleared of mortgage after a hard pull. These works are the children of the farmer's brain and muscle, and why should he put a price on them? Happy the man who can prove by soil and trees and buildings that he has done something to make the world a better place to live in, and something that when he is gone will do his memory credit.

Changing or transferring a pedigree of live stock is just as much a swindling trick as to alter a check or give straw ball. Pedigree has a cash value to breeders, since it insures a strain of breeding established through many generations. To change over a pedigree record is like giving wrong change or false measure. Canadian stock breeders are excited over the recent alleged discovery of wholesale frauds of this kind. They demand that the evil practice be checked before it works serious injury to the market for Canadian pure-bred live stock.

An epidemic in the form of a general shakeup seems to have been going the rounds of New England agricultural colleges. Extensive changes in management or in the teaching force have taken place in nearly every one. The latest symptoms have occurred in the Hampshire, where the resignation of president C. S. Muirhead has led to considerable speculation as to who will be his successor. The suggested appointment of Gov. N. J. Batchelder would be excellent in many ways, and it would seem difficult to find another candidate of equal ability so fully commanding the confidence of the farmers.

If the grape-vines have not been pruned this work should be done at once, and no vine requires more severe cutting. It should be kept in mind that the bunches will be borne on the new growth, not on the old wood. In California through the great raisin and wine sections, many of the vineyards are cut down every year to the mere stump a few inches above the ground. It is a good rule to cut too much rather than too little. Old vines on which the pruning has been neglected for several years may often be stimulated into good yields by simply pruning. When the buds of the grapes have swelled to any extent it is a sign that the first spraying should have been already applied.

**Domestic Trials.**  
The eternal servant-girl question is again universal, and all kinds of plans are advanced to settle it in a satisfactory manner, for it will not be quieted. Like Banquo's ghost it will not be down, but persists in appearing at the banquet. Recently the New York State Household Economic Association, at a meeting held at the Berkeley Lyceum, in the Metropolitan, served a hot dinner at 4.30 P. M., which had been cooked in New Haven in the morning and shipped from there at 11.30 P. M. It included soup, fish, potatoes, roast lamb and spinach, and was packed, as we learn from the Tribune, in a brass cylinder composed of two sheets of metal placed about two inches apart and including a mass of non-conducting material. A cover constructed in the same way closed the cylinder, at the bottom of which was a heater. It was claimed that hot cooked food could be distributed by this system at the same cost at which people now buy the raw material for their meals. We believe that something of this kind was tried in Boston some years ago, in the way of serving dinners from a central kitchen, but it was discontinued for some reason or other that we do not now recall. It may have been unprofitable, or it may have proved unsatisfactory.

Perhaps this new development of an old experiment may prove of permanent worth, for it is said to have met with success in Pittsburgh, New Haven and Mansfield, O. Anything that could relieve housekeepers from the tyranny of incompetent cooks would be welcomed by hundreds of families who are paying high wages to domestics who do not understand the rudiments of good cookery, and who have an impudence and assurance that the really able never display. They are hardly landed on these shores when they demand \$5 a week each for such unsatisfactory service as they may be able to supply. Some of them do not even know the names of some of the articles that they attempt to prepare for the table, and not long ago we heard of a new servant who asked her mistress if she wanted the olives boiled or fried.

All and the while these ignoramuses are getting far better pay than women of more intelligence who have had a high school education. The money these servants receive is nearly all clear gain, for they have no board or lodging to pay, no car fares to meet, and the wear and tear on their good clothing is slight, since very cheap material can be used in doing housework. To be sure, their hours are longer than those of young women who finish their labors at dark, and who have their Sundays to themselves, but nowadays, servants demand so many privileges that it may not be long before they insist upon having their evenings to themselves, like the colored girls in the South, with the traditional Thursday and Sunday afternoons thrown in, and with provisions that men shall make the kitchen fires after or before they have attended to the shaking of the furnaces.

They could not be quite so liberal if they were not receiving wages far in advance of what many of them really earn in the genuine performance of domestic labor. The time is within the memory of many when a dollar and a half a week was considered good pay for a female servant. It may be said that many things were cheaper in those days. Yes, provisions and groceries were lower, but the householder has to board the servant now as he did then, so the advantage seems to be in favor of the latter. Rents, too, are much higher than they were in the old days, and consequently the cost of lodging is greater. Clothing and the price for transportation are much less, to be sure, but all share alike in this improvement.

There are servants, faithful, honest and devoted, who are conscientious in all that they do and who are thoroughly competent in what they attempt, but there are too many of the other kind who make house-keeping a burden when it should be one of the attractive features of life, making the home really, and not figuratively, the dearest spot on earth. Co-operative cooking may help to do away with many of the evils which make the wife and mother either a household drudge or the subject of an imperious kitchen sovereign, but we confess to a weakness for retaining the old custom of selecting our own food at the market and having it cooked under our own roof. Still, we are open to conviction, and believe in the greatest good to the greatest number.

## Whigs and Tories.

**The Traitor—The Grammarian and the Driver—Benedict Arnold—Lindley Murray and Mather Byles.**

BY BENJAMIN F. STEVENS.  
The author of "The American Loyalist," Lorenzo Sabine, who wrote an exceedingly interesting work on "Duels and Duelling," tells us that the causes which influenced the Loyalists, or Tories, as they were called, in the time of our Revolution, to espouse and adhere to the cause of Great Britain as against what was known as the "Whigs," or those who sought to throw off the yoke of the Mother Country, are and ever will be a mystery. They separated themselves from their kindred and friends, were driven from their homes, and, as it were, became outlaws, wanderers and exiles; they left few, if any, memorials behind them; their papers were scattered and lost, and their very names have almost passed from recollection. Except what Sabine has gathered by hard work—and quotations from him will be frequent—it may be doubted if there is extant any reliable information concerning them. Living as he did upon the Eastern frontier of our Union, he became an ardent student on the subject of the Loyalists of the Revolution. He was not far from their graves; he saw and conversed with their descendants, and had the use of what family documents he could get his hands on. He did not rest until he had made journeys to confer with the living and pilgrimages to the graveyards in the British Provinces, in order to complete his records of the dead, and he succeeded in giving to the world a volume of information, which, though incomplete, as he himself admits, will stand as a lasting monument of his industry and literary ability.

In the town of Boston, immediately before the inauguration of the Revolution, there were at least one hundred persons, some of whom were of the greatest respectability, who were known to be true to the cause of the king—a large number when the small number of the inhabitants in the town to account. When Governor Hutchinson departed for England, he was "waited upon by more than two hundred merchants, lawyers and other citizens of Boston, Salem and Marblehead; and when his successor, Governor Gage, retired from office, in 1775, a few months after Washington had taken command of the American forces, he received, remain, and, "according to Murray," is still a phrase used to establish the correctness of anything of a grammatical nature. Lindley Murray was born in Pennsylvania, of Quaker parentage, and was brought up to a mercantile life; but was finally allowed to study law, which he did as fellow-student of the illustrious John Jay, of Revolutionary and legal fame. He was a decided Loyalist, but a man of extreme purity of life. He remained in America during the Revolution, but embarked for England in 1784. "My attachment to the home of my fathers," he said, "was founded on many pleasing associations. In particular, I had strong prepossessions in favor of a residence in England, because I was ever partial to its political constitution and the mildness and wisdom of its general system of laws. May its political fabric, which has stood the test of ages, and long attracted the admiration of the world, be supported and perpetuated by Divine Providence." This good man, for he was good in everything but his adherence to a lost cause, suffered so much from physical infirmity that for more than sixteen years he never left his house near the city of York, in England; but his mental faculties remained unimpaired to the last. "His life and death were blessed, and his memory is blessed; his literary works and his good deeds are a lasting memorial of him." His benevolence was universal. In a word, he was a true Christian gentleman, passing quietly at the age of eighty-one, he was beloved and honored throughout the world. How different this life from that of the traitorous one of Arnold!

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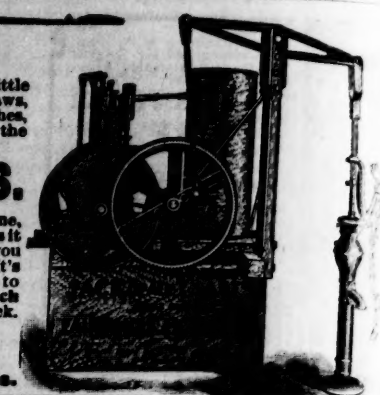
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After he fled the country he was made a brigadier-general in the British service, and received a large amount of gold to cover his alleged losses in deserting the Whig cause. But his commission was dyed with Andre's blood, which, like the blood of Duncan on the hands of Lady Macbeth, would not out. The death of that accomplished officer, Major Andre, was ever before the eyes of the traitor. A New York Loyalist, happening to be in England, paid a visit to Westminster Abbey, where his musings were interrupted by the entrance of a gentleman and a lady. They passed to the cenotaph of Major Andre, where they stood and conversed together. What a spectacle! The traitor at the tomb of his victim, deliberately perusing the monumental inscription which would transmit to future ages the tale of his own infamy. The Loyalist turned away in disgust. In 1801 Benedict Arnold was called from this world, and when he stands before the judgment seat on the great day of resurrection, may God have mercy on his soul, for his infamous memory will never die; it is the first thing the little one is taught at school in this country, and it is the last the gray-beard thinks of.

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into one central body, the president of the society is Lady Frances Balfour, daughter of the late duke of Argyll, and wife of Lord Balfour, a brother of the prime minister. Lady Frances is a brilliant wit, a convincing speaker, and a consummate organizer.

Connecticut fruit growers think of making a system of co-operative marketing through their State society. Work done in that direction has already been carried on the society and by the corresponding organizations in Massachusetts. Last year in Connecticut an advance census of the fruit growers has taken, also a list of growers and their shipping stations was prepared and sent to the society and to the corresponding organizations in Massachusetts. The success of the plan has led to a demand for further steps in the same general direction. Massachusetts fruit growers have made a co-operative study of markets and marketing, and at their meeting in Worcester this week are considering more definite work in this line. With the growing pressure of competition and the closer association of fruit specialists, the demand for co-operative crop management is likely to increase.

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## Our Homes.

## The Workbox.

**CROCHETED YOKE CAPE.**  
Required, 6 hanks of white and 3 hanks colored Shetland flax, using the colored wool for yoke, and using two threads at once; chain 100 stitches. Work back in double crochet (or slipper stitch) for twenty-five stitches, increase in the twenty-sixth by putting 3 stitches into one, crochet 4, increase in the thirty-third, crochet 40, increase in the seventy-fifth, crochet 4, increase in the seventy-fifth and crochet twenty-five. Work back and forth in slipper stitch for eleven ridges, increasing in every row in the middle of the 3 extra stitches; this will form the shoulder in the yoke. (If preferred, one shade may be used for the cape.)

**Cape Part—**Use the white, one thread only. Chain 3, and work a treble into each of the first 4 stitches. Into the fifth make shell of 4 treble, with chain in the center—4 single treble, 1 shell, 4 treble, 1 shell, all the way across.

2d row—Like first, except work your treble around those in the former row, making shell as usual, putting the stitches into the center of the shell in former row; work back and forth in this manner, making 4 rows of white; 1 row of blue (or color), making 6 stitches in each shell; 2 rows of white, making 6 stitches in each shell; 1 row of white, making 6 stitches in each shell. Finish with shell and picot edge of white around cape, a row of holes round neck, finished with shell, which is also run down the edge. Run in ribbon at neck.

Many beautiful things are made with cigar ribbons, and to any one sending me a self-addressed stamped envelope, also ten cents, I will draw the design for a table-cover or sofa-cushion. I can also send cigar ribbons for one cent a piece, as many as desired. My address is 28 Pinckney street, Boston.

EVA M. NILES.

## Ribbons.

Ribbons are worn for belts, ties and in so many other ways that the amount expended for them is no small item in the cost of clothing. No toilette is complete without them, for they relieve the severity of the tailor-made gown, and add an additional charm to more elaborate toilettes.

Ribbons are not only expensive, but easily soiled, and while a pretty stock and belt will do much toward making a plain dress look stylish, a soiled or faded ribbon will spoil the effect of the daintiest toilette. Almost any ribbon will bear washing if carefully handled. Many economical women have learned the virtues of gascol for cleaning them, while others use a sud made of soap-bar chips. They should be rubbed between the hands until thoroughly clean, then examine them, and if they are too badly added to use again, dye them some darker shade with Diamond dye, and they are given a new lease of life. White ribbons will take delicate shades of blue, pink and lavender.

Light-colored ribbons are pretty dyed cardinal red; or if they are too dark for that, save them until you have half a pound or more, and use a package of the black dye for silk. No matter what color they are, not how spotted or streaked, they will come forth a beautiful jet black. Rinse thoroughly in several warm, soft waters, until the last rinsing water is left clear. Then smooth the ribbon between the hands, and wind over a wide piece of stiff cardboard. When all has been wound around, place it between soft cloths, and put it under a heavy pressure. A letter press is good if you have one; if not, place it under heavy books and leave it until dry. When taken out, it will be smooth and look like new.

E. J. C.

## Whims and Wrinkles.

Here are some suggestions for the woman who would avoid wrinkles:

Don't speak with all the muscles of the face in play. It is very charming and captivating to be deeply, deeply in earnest, but facial grimaces form creases which, in time, will become fixed.

Don't worry, but if worry you must, keep the forehead smooth and don't frown.

Don't wear tight shoes. They make a young face look drawn and wrinkled in a few hours.

Don't neglect the ten minutes rest during the day, with the feet raised. It gives the whole body a great sense of repose and works wonders in smoothing out the lines of the face.

Don't let insomnia get the upper hand. By all means in your power try to break up the habit. Sleeplessness is sometimes caused by unconscious hunger, and a cup of hot water or a biscuit will often induce sleep.

Don't go too long without food. Hunger gives a strained look to the face. Now and then, if one is fatigued, a bite between meals will invigorate the whole system and give repose and relaxation to strained muscles and nerves.

Don't sit facing a strong light.

Don't stoop or bend over while reading or writing.

Don't scowl.

Don't use violence in smoothing out lines on the face, for it will not stand pounding. The manipulation must be gentle and even, or the skin will become coarse and leathery.

Don't rub the lines the wrong way, or they will become more, instead of less, prominent. Rub across the wrinkles with a rotary motion.

Don't loosen the skin from the underlying tissues, or stretch it.

Don't forget that occasionally during treatment the face should be gently smoothed with the tips of the fingers of both hands.

Don't believe that there is any supernatural virtue in being ugly, or that it is so very frivolous to contrive that a man shall always remain in love with his own wife.

For the man who loves outdoor sports, and the woman, too, for that matter, come

EXPOSURE  
to the cold and wet is the first step to Pneumonia. Take a dose of PERRY DAVIS' Painkiller

and the danger can be averted. It has no equal as a preventive and cure for Colds, Sore Throat, Quinsy and Rheumatism. Always keep it handy.

innumerable desk furnishings suggestive of the chase. An inkstand is sunken in the tip of a deer's antler. The handle of the blotter, as well as the paper knife and penholder, is of horn or bone, invariably tipped with gold. With such furnishings as this a waste basket of Indian weave is suitable. For college students are desk sets in absolutely nothing new in the way of designs, and only a college girl can see beauty in vivid blue, red or black and orange leather. In consequence of this rage for individuality and fitting out desks to follow the general scheme of the library or den, the silver furnishings have suffered an eclipse and may be picked up for a mere song. One is always safe in buying these, provided the design is simple and elegant, for the world is of things that glitter to get sterling silver under a cloud for many moons.

As women follow most faithfully the changes in stationery, it is not remarkable that new grades of paper are named for fabrics favored by the shoppers. For several seasons dealers have been showing a paper called linen lawn, which is all its name implies. It is a trifle rough to the eye, yet soft to the pen, closely woven and somewhat rich in texture. The organdie papers are sheer and light weight. From London comes an organdie paper with sprigs of flowers in an upper corner, but it has not found favor with American women.

A paper just reaching the market is called "Dotted Swiss," and when held to the light it reveals a perfect reproduction of the dotted effect of this popular summer material. The dots are for the eye only, and do not interfere with the movement of the pen. The most faddish offering of the hour shows the influence of the handwork that is on all things this season. It is an excellent hemstitch effect on paper, the simulation of a half-inch hem running around the edge lines of the sheet. Sometimes there are two lines, either of the same tint as the paper or in a contrasting color. At one shop \$1.50 per quire is charged for a gray paper of this sort, which shows the hemstitching in red. Another design shows a distinct feather stitching between the double line of hemstitching. This is secured by embossing of the most skillful sort.

## Sensitiveness—For Weal or Woe.

Two women, visiting, wandered on to the subject of sensitiveness. "It is such an unfortunate trait," the younger one insisted. "My little Harriet goes off into tears at the slightest correction, and the habit has become a nuisance."

"Have you ever tried reasoning with her—the mildest kind, of course? There is a certain appeal in the attitude of apparent even if only temporary equality which few children can resist; but they almost invariably resent unsolicited commands."

The older woman was wise of insight. "Reason with my baby? She is only six years old yet!"

"Only six? Why, the most successful mother I know—one with five children—has reasoned with her children—I might almost say consulted with them—ever since they could talk. It's astonishing how much judgment they have shown as they developed. They are not precocious, either. Good sense seems to be an instinct with them; but, in fact, the mother has planted it. Try it. For instance, when Harriet has a cold and wants to expose herself to more, talk it over with her and get her co-operation against it. This same mother grew anxious because of the repeated colds her little daughter had. But after a friendly talk she promised the child a long-desired doll if she would be very careful and not have another cold before March 1."

"What a queer way! Still, I suppose it might work well. But as regards Harriet, the least comment seems to upset her quite as much as correcting her. She is just a little bundle of 'readiness to take offense.'"

"I can understand that, partly from my own childhood experience," came the older woman's quick response. "Once my mother told me, or somebody in my presence, that an uncle, because I cried a great deal as a little baby, said he wouldn't give a pair of old shoes for me. I suffered years from an ignominious sense of nothingness."

Another time, when I had grown into a tall, awkward girl, a superior sort of young man cousin said brusquely to me, 'You will have neither beauty nor money; you will have to marry for love.' That seemed a dreadful fate to me then, and temporarily, at least, his comment made me sadder and more awkward than ever."

Most children take impressions as readily as the sensitive plate of a camera. Just a few days ago I overheard a mother say in her little girl's presence, 'Maudie is dreadfully afraid of spiders. I expect she would have a spasm if she found one on her.' And I felt sure that Maudie would—since it was suggested to her."

"We don't realize," the older woman continued, "unless we have kept childhood in our heart, how deeply comment and suggestion and criticism impress our children, except the abnormally insensitive ones. If we remind ourselves of this impressionability—in case we do not remember it—and if we take time for the talking over of things with children, much of the harm of morbid sensitiveness would be avoided and the germs of good judgment implanted."

"One needs the wisdom of Solomon to bring up children these days," commented the younger woman. "But it's worth while," she added, with convincing fervor. "The more sensitive a nature is, 'the more it feels of pleasure and of pain,' said the other. 'Sensitiveness, rightly directed, develops fitness of insight and of living.'—New York Tribune.

## Gall-Stones.

Gall-stones are the cause of biliary colic, attacks of which are usually marked by intense pain and alarming collapse.

Gall-stones are composed of the more solid ingredients of the bile, so that they are "stones" only in the fact that they are hard and composed in part of mineral salts such as normally are found in the bile, only in a soluble state. The occurrence of stone in this region, and in other cavities of the body, is due to no cause of wonderment, but is a result of the presence of the solid constituents in too great, or of the watery elements in too small, quantity.

The presence of gall-stones in the gall-bladder or in the narrow passages through which the bile flows, from the liver to the intestinal canal, is not always announced by attacks of sharp, colicky pain. An indefinite soreness or pain of irregular duration and varying degree in the pit of the stomach, or from that point to the right, along the border-line well marked by the lower limit of the bony parts of the chest wall, may be due to gall-stones or to the collections of thickened masses of bile, which are the precursors of gall-stones. These masses of thickened bile may, of themselves, occasion biliary colic of a milder form.

Biliary colic is one of nature's danger signals, but one rarely heeded by the sufferer. The explanation of the nature of this trouble already given in this paper should suggest the means of prevention. The presence of gall-stones or of thickened masses of bile indicates the need of a larger quantity of liquid, and a smaller quantity of solid, elements in the food. To prevent the formation of these obstructions and to dissipate such as may have formed, drink more water and eat less solid food.

It is interesting to note that among English physicians the popular treatment for gall-stones formerly consisted, in large part, in restricting the diet; while in Germany a liberal use of the mineral spring waters, notably the Carlsbad, was prescribed. A recognition of the value of the two methods combined has resulted in the adoption of both these measures by physicians. Solids are given more sparingly and water more generously.

Errors of diet so commonly result in disorders within the bile ducts that these disorders are more common than the frequency of symptoms would lead one to suppose. Devotion to the pleasures of the table is not consistent with a healthy state of the liver and bile ducts.

Soreness in this region should be regarded as a warning. If a would escape the severe manifestations which continued indulgence in full and frequent meals, together with insufficient exercise, entails.—Youth's Companion.

## The Happiest Day.

What is the happiest day in a woman's life?

The 210 members and ninety guests of the Electric Club pondered this absorbing question prior to the luncheon and reception in honor of Mrs. Charles M. Dow of Jamestown, president of the State Federation, and the other officers of the federation.

Mrs. Powhattan Gordon set the ball rolling with her paper, in which she discussed the crises in a woman's life which are supposed to add most conspicuously to her gaiety—her engagement, her marriage, the day when her first-born is placed in her arms, and so on. Mrs. Gordon found it impossible to settle on one of these events as essential to "the" day in a woman's life.

"I think a woman is happiest when the carriage comes after the wedding to take her away," remarked Mrs. Philip Anseley of Albany, when the subject was opened for discussion. "You see, she's leaving all her old clothes behind. In a month or two, however, she's apt to want her old clothes again."

"I think a woman's happiest day never comes, because she's always looking forward to it—it's always in the future, never in the present," was the opinion of Mrs. Dore Lyon, Electric's president.

"Well, I am going to speak from the man's point of view," declared Mrs. Philip Carpenter. "I asked a man what he thought about it, and his answer was, 'The day she finds a bargain.' Then, to illustrate, he told about a woman who said that a certain bank had been obliged to lower its rate of interest to three per cent. So she scraped together all the money she could lay her hands on and put it in the bank. 'I couldn't resist such a bargain,' she explained."

Mrs. E. A. Greeley, corresponding secretary, spoke as the clubwoman. "I think the day when one reads her first paper before a club and sees it in the newspaper is the happiest day."

"I think it's when she's with the man she loves—on a moonlight night," hazarded an Electric member, amid the shouts of the other clubwomen.

## Rejuvenating Furniture.

As regards repainting furniture or woodwork, it may be said that paint is a great beautifier. White enamel is, of course, the very prettiest thing, if you are able to put it on properly. My own experience is that this requires a professional hand, and other people may be cleverer about spreading it on than even. The bright-red or dark-green paint, so favored for porch or lawn furniture, is also suitable for a country bed-chamber, with matting on the floor and muslin curtains.

A most attractive room for two little girls was once made by giving various tattered chairs and bureaus a coat of red paint, as well as the bedstead, which was a three-quarter iron one, badly scaled off. The paper in this room is a Japanese design of flying birds and palms, brown on a white ground, and there are some brown Japanese rugs on the floor.

Dark-green paint is admirable for dining-room or library, supposing that your sideboard and table are not worth refinishing. Blue china, silver and linen can have a better setting than a dark-green buffet or serving table. Good papers can be had for the walls in large, gleams-of-yellow or orange. A blue and green Morris paper and plain blue curtains are effective also, though somewhat severe unless the room is a sunny one. Old pieces of wicker or raffia furniture look particularly in place among red or green-painted furniture.

Another kind of paint to be highly commended for practical use is the kind known as "drop black." It dries quickly, and makes a dull, ebony-like surface.—Isabel McDougall, in The Pictorial.

## Domestic Hints.

## RISQUE OF CRABS.

Found together with the meat of a dozen hard-shelled crabs, and a half of boiled rice. Add this pulp to a quart of rich milk; let it come to a boil, then simmer for five minutes, stirring it meanwhile. Remove from the fire and press through a puree sieve; add one tablespoonful of butter, salt and pepper, then place upon the fire, allowing it to come to a boil before adding a cupful of whipped cream. Serve immediately.—What to Eat.

**SMOKED SALMON CROQUETTES.**  
Freshen the salmon a bit if it seems to be too salt, flake it up and just heat through in water. Mix with a practical quantity of a fine cracker crumbs, a chopped Spanish pepper (better use the canned ones now), the juice of an onion and moisten with a little melted butter and a bit of stock if needed. Shape and fry. Serve plain or with a sauce piquant. They should have a flavor quite peculiar to smoked salmon in order to be at their best, and care must be taken not to freshen or cook this flavor out of the salmon. And, if preferred, the piquant sauce may have a Spanish pepper chopped and added to that instead of the croquettes themselves.—The Epicure.

**FRUIT JELLY.**  
Wash a pound of prunes and cook with one quart of water, a cupful of sugar, a piece of lemon peel and a stick of cinnamon. Tender. Take the stones out and press the prune pulp through a sieve. To this add half an ounce of gelatine dissolved in a very little water and two gills of port wine. Mould, and when unmoulding garnish with thin slices of oranges.

**KISSES.**  
Beat the whites of eight eggs until frothy. Add gradually one pound of powdered sugar which has been sifted with one teaspoonful of vanilla sugar. Beat until stiff and as white as snow. Drop by spoonfuls on white paper on a board. Dust with powdered sugar and bake in the oven for a quick oven. They are done when hard and of a light fawn color. For coconut kisses, add one cupful of grated coconut before dropping the mixture on the paper.

**SCOTCH TOAST.**  
To one cupful of chopped cold boiled tongue add the yolk of one egg and some chopped parsley. Season with salt, pepper, one teaspoonful of Worcestershire sauce and a dash of celery salt or oregano. Moisten with cream. Heat the mixture in a saucepan and spread on squares of buttered toast. Sprinkle with bread crumbs, brown quickly, and serve with a garniture of lemon and parsley.

**CHEESE CROQUETTES.**  
Cut into dice one pound of American cheese. Make a cupful of cream sauce, and while it is hot add the cheese and the yolks of two beaten eggs thinned with a little cream. Stir the mixture until well blended. Season with salt and red and white pepper, and a little nutmeg. Set aside in a cold place until it can be formed into croquettes, when roll in the bread crumbs, dip in egg, roll again in bread crumbs, and fry in deep fat.—Good Housekeeping.

## Hints to Housekeepers.

From cold roasted teal or widgeon, not quite cooked to the finishing touch, an appetizing chafing-dish affair may be made by taking thin slices from the breasts and heating them through in a sauce made of one ounce of butter, three times as much currant jelly, and two gills of port wine. No more than hot should these slices of breast get before being served.

No kitchen luxury gives better satisfaction than the kitchen bouquet which comes in caramel form, and lends a rich color and a delicious taste to soups, gravies, hashes and made dishes. It is made from concentrated extract of vegetables, spices and meat extract, and a very little of it goes far in cooking.

Deviled almonds are an addition to a dish of oysters raw or cooked. Blanch and shred two ounces of almonds, saute them in a little oil, and while hot pour over them one tablespoonful of butter, two tablespoonfuls of chopped pickles, one tablespoonful of Worcestershire sauce, salt and a little cayenne pepper. This recipe comes from the New England School of Cookery.

The lamp wick should be the largest size that the holder will receive. If it refuses to move easily draw out one or two threads from each side.

Purses and handbags of suede or more are ornamented with dragon flies, storks and bats in frosted silver. Some in suede are ivory finished, and a tiny carved ivory idol or animal is attached by a chain of ivory beads.

Some of the prettiest new table covers and sofa pillows are of heavy linen applique with burned leather. A table cover is of green linen canvas, which is ornamented with a lotus design in brown calf.

A solution of powdered alum in the proportion of one teaspoonful to a cup of cold water, is useful for relieving chilblains. Sponge the feet or bind on cloths dipped in the alum and water, but do not soak the feet in it.

Powdered pumice, moistened and rubbed on superfluous hair several times daily, will, it is said, remove the distressing affliction from the hands and arms. The hair is sure to return, however, unless permanently destroyed by the electric needle.

Sage tea is an old remedy for making the hair grow. It darkens the hair temporarily, but is perfectly harmless. The dried sage can be procured at any drug store. Pour boiling water over a teaspoonful of sage, then cold pour off and rub into the roots of the hair.

The latest flower of fashion is the fuchsia, or any kind that droops. In chiffon, in velvet and now in jewelry, it is seen, and the art nouveau has given it a wonderful charm. Done in brilliant it is effective and in enamel it is still silver and opal-gray tints are in evidence among these wool and light-weight tailors' cloths. Fongee, both in its natural color and dyed in many novel tints of sage green, blue, brown, cherry red and mauve, is to be a popular fabric this spring, and there are already costumes and shirt waists made of this material, with decorations of linen lace all-overs, and insertion bands or embroidery, both in pure white colors. The new bordered pongsies will make very pretty walking and church costumes, with parasols en suite.

The variety of spring and summer silks costing from sixty-five cents to \$1.25 a yard is greater than ever, but taffeta and silk and satin foulard will probably be the most popular materials for silk costumes throughout the spring season. Gowns of this kind are never in bad taste, and are suitable for day or evening wear for Lent and Easter. In addition to the familiar pale and deep sapphires and silver blues, this year there will be designs in mauve, violet, amethyst, dahlia, old rose, stem green and sage-green shades, blended with white or pale cream color. The black and white effects are still fashionable. Peau de sole in monochromes, both for gowns and fancy waists, it is thought, will be one of the favorite summer silks, also peau de Diam and peau de cygne in Persian patterns or in delicate all-over designs in soft pastel combinations.

The faded gold crimmings, gimps, braids, pins, lace, nets and buttons seems to have been revived. These ornaments now appear on the cheapest gowns and jackets, and black-and-gold hats can be bought at very low prices. These hats are covered with spangled nets and trimmed with tawdry pins and buckles. A little fine Calico gold ornamentation on a handsome gown or hat, worn at an appropriate time, with every other detail of the costume in perfect harmony with it, is effective. An every-day costume of blue, brown or green cloth is far better made up with trimmings of tailor buttons or gimp frogs, and plain silk braid or stitching, than decked with a mass of gold gimps and buttons that the air will quickly trample.

Imported dresses of genuine French merized gingham, batiste and linen have been designed with elaborate bodies and simple skirts. These are models for summer gowns and make very dainty frocks. They are designed like those of fancy silk and fine sheer woolen, the skirts laid in clusters or vertical tucks or finished with hemstitched ruffles. These dresses are not intended to be laundered, being made over taffeta or other fine lining. The bodies are trimmed with open-patterned point de Gène, Irish point, Tenebris, or Torchon lace, or all-over embroidery. Berthas, or somewhat narrower fichus, diminish to very narrow points on pretty waists of organdie. French zenithy in delicate monochromes, or of dainty white muslins, plain sprigged, lace striped or polka dotted.

Plain, flowered, dotted and striped linen lawns of fine texture and coloring will be in favor throughout the summer season. A display of these sheer, semi-transparent materials is already made in every importing and fancy goods house in the city.—New York Evening Post.

## The World Beautiful.

Lilian Whiting, in Boston Budget.  
With each new day God sets for you  
A fair clean page to write anew  
The lesson blotted hitherto.

—Rev. Charles Gordon Ames, D. D.  
"Fill my hour, ye gods, so that I shall not say, 'What I have done this.' Behold, also, an hour of my life is gone,—but rather, 'I have lived an hour.'"—Emerson.

"Do we not all wish that we could live our lives over again in the light of our present experiences?" said Rev. Dr. Ames in a personal conversation, recently; "but this is just what God lets us do."

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of soft lustrous gray Mousseline silk trimmed with three accordion-plaited frills of the silk simply bordered by rows of mauve silk stitching.

Deep bouffants extending from a hip yoke, or from the belt to the hem of the skirt, will be a popular trimming for summer silks, crepe de chine, voile, foulard, French muslin, etc. This revived fashion will make it possible to use skirts of another season by adding double or triple flounces of effect material.

A model for light mourning from a designing house in London is made of silk-warp black voile with a simulated double skirt bordered at the hem with two rows of black gimp lace. The blouse has a folded fob of black mousseline de soie, with frills of the same material covered with black silk embroidery; and the sleeves and skirt are banded with the same rich trimming.

The hat en suite is made of tulle draperies and mauve and white voiles, with the stems twisted to show beneath soft folds of the tulle.

Among the new designs now seen in the shops are waists of antique lace trimmed with showy appliques or wide insertion bands of Venice gimpure in white, black or soft Persian colors; costumes of batiste blue cloth with blouse fronts made of soft plaided silk handkerchiefs, or of striped or plaided sash ribbons; white satin collars, vests and revers worked with gold and amber beads; hemstitched handkerchiefs and matching stock collars showing a delicate line of colored embroidery in silk above the narrow hem; stick-pins of cats'-eyes mounted in pearl and gold; new French chapeaux and veillings broadened in small, beautiful flower clusters and stripes in delicate satin effects; creped veillings in Dresden patterns, in larger Marie Antoinette and Louis XIV. designs and also in striking Oriental designs on black, cream and ivory-white grounds.

Many women have again taken up various kinds of lace work. The popular antique or mural laces bear a very close resemblance to those which fancy workers produced some years ago. These laces are effective, do not greatly strain the sight, and can always be turned to decorative uses.

An effective French dress model of pale turquoise-blue batiste is made over simple taffeta of the same tint. The separate batiste skirt is trimmed with five rows of antique linen lace insertion. The collarless open bodice shows an inner blouse of the lace, a shimmer of soft blue Liberty silk batiste showing through the mesh. The drooping sleeves are made of silk and lace matching this vest. There is a belt with dangling ends made of black velvet ribbon bands and small flower-like rosettes. The collar band is of lace and blue silk.

Simple, but effective dinner gowns are made of light silk or inexpensive brocade trimmed with black tulle ruffles. These ruffles are popular just now, and have the softening effect of narrow feather bands, which they resemble at a distance. Plain tulle, very light in texture, is used, but it is thickly plaited and thickly applied. The ruche is put on wherever gimp or other trimming might be used, encircling the neck, crossing the foot of the skirt, bordering frills and fichu draperies, etc. Point d'esprit is also used for shirred or plaited ruching, but it has less of the airy appearance of either tulle or chiffon, although it is more desirable than either of them.

In the list of dress materials for tucked, ruffled or shirred summer dresses, new double-width India muslins, with backgrounds of pale sea green, forget-me-not blue, cream, tea-rose pink, primrose yellow, etc., are shown. These are figured with shaded violets, carnation blossoms, briar roses and foliage, Marguerites, bowknot and trellis patterns, etc. Persian borderings appear on some of the new muslins, monochromes and bordered or embroidered barges, etamines, and batistes are also shown. All of the soft mauve, fawn and pale tan colors, as well as silver and opal-gray tints are in evidence among these wool and light-weight tailors' cloths.

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Some of the talk about building roads gives the impression that a stone road is once built the matter is settled. But such is far from the fact. The severe climate of the Northeastern States, where steep grades, violent storms, and thawing weather, and the use of heavy wagons all combine to cause serious amount of wear. Some very costly roads, built half a dozen years ago in Massachusetts, have required considerable repairs, the annual expense for that purpose being already a large item. Of course, the outlay is much less than for roads less substantial and solid, but the idea should prevail that any road in this climate should stand all sorts of wear and abuse without showing the effect. In cases where the towns have charge of the new roads, they should not be allowed to presume upon the durable nature of the construction, but should be instructed by the State to properly make the slight and frequent repairs which are needed to keep stone roads in best condition.







# Fruit Growing, Truck, Etc., on Light Soils.

SEND FOR LATEST PAMPHLETS, 1903, ENTITLED  
STRAWBERRIES, STRAWBERRY PLANTS, SMALL FRUITS, ASPARAGUS, CABBAGES, POTATOES AND GENERAL TRUCK CROPS FOR MARKET.

Thinnest, lightest, poor soils brought up into good condition with large profits from start. Experience in some cases of 25 years and over. Some extracts from "Fertilizer Farming Up to Date," "Rural New Yorker" etc. by H. W. Collingwood, Editor "The Rural New Yorker."

ALSO FOR FERTILIZERS AND FRUIT.

"FERTILIZERS AND FRUIT," by H. W. Collingwood. Under this latter title Mr. Collingwood has written a series of articles in the Rural New Yorker, descriptive of his visits to some of the most prominent and successful growers on the Hudson River, New York, of grapes, peaches, apples, pears, strawberries, gooseberries, blackberries, currants, etc. Mr. Collingwood gives full details of the preparation of the ground, fertilizing, setting out, cultivation, pruning, and all practical details necessary for any grower to know who wishes to follow the methods that have made this section so famous for success in fruit growing. The questions asked by Mr. Collingwood of these practical growers elicited answers that bear directly on each phase of the subject, and furnish the best practical experience, and also bring out the principles that underlie successful

fruit culture, and which are applicable in a less or greater degree to all sections, and we believe this book will prove valuable to growers of fruit on all classes of soils, particularly peaches and grapes. One point that is especially emphasized in these interviews, as related by Mr. Collingwood, is the great importance of developing the highest fruiting power, not only in quantity, but in quality of fruit, lusciousness, high color, early maturity, good shipping qualities, and at the same time full vigor of vine, trees and shrubs, freedom of disease, healthy, vigorous stamina, without any tendency to excessive wood growth.

Dr. F. M. Hexamer, in the American Agriculturist.

## GENERAL FARMING

SEND FOR LATEST PAMPHLET, 1903, ENTITLED,

FERTILIZER FARMING UP TO DATE.

CHEMICALS AND CLOVER—THIRD SERIES

The Poorest, Light, Sandy Soils Brought Up to High Fertility with PROFIT FROM THE START.

A review of practical experience covering twenty to twenty-five years on varied soils, from almost pure sand to medium heavy loam, without stable manure, only the Mapes Complete Manures used, with profit from the start, and the lands found to be steadily improving in fertility and yielding increased profits. These farmers and special crop growers are among the most successful in the country.

"FERTILIZER FARMING," by H. W. Collingwood, editor of "The Rural New Yorker." An account of visits to farms of successful truckers, growers of cabbages, cauliflower, potatoes, etc., on Long Island. This pamphlet has received the highest praise of the leading agricultural journals. It is thoroughly practical.

**Increase Yield from only 400 lbs. per acre Potato Fertilizer**  
Mr. J. S. VAN EATON, Xenia, Ohio, reports: "Season 1902 used the Mapes Potato Manure on four acres of potatoes, planting three varieties."

Yield in bushels computed per acre:

	Variety No. 1	Variety No. 2	Variety No. 3
Mapes Potato, 400 lbs.	199.50	218.10	165.00
No Fertilizer	106.20	142.05	97.50
Increase in bushels	93.30	76.05	67.50

This gives a total increase, on three acres, of 234 bushels, or an average of 78 bushels per acre. My total planting was four acres and say increased yield was easily upward 350 bushels. Cost of fertilizer with freight, \$24.50. Potatoes at digging season were worth 40c., now 60c. Have sold but few so that with no future losses I estimate a large profit.

**FIFTY ACRES IN POTATOES.**

Messrs. Geo. M. Hewlett & Co., Merrick, L. I., Season 1902, report total yield, 12,500 bushels of superior quality. Only the Mapes Manure used.

**APPLE ORCHARDS.**

A grower writes: "We have 600 trees on the farm in New Baltimore, N.Y. But three tons of the 'Mapes Complete Manure, 10 per cent. Potash,' were used on only about one-half of the trees. The 1,600

barrels of apples we picked were nearly all from the trees that we fertilized; the other trees had only a few apples on them. We spread the fertilizer in a circle of about 20 feet, using 20 pounds per tree."

**Potato Yields, Season 1902.**

See pamphlets for further details.

Eighteen acres Potatoes yield 2,200 barrels, equal to 305 bushels per acre. Two and one-half acres Potatoes yield 925 barrels, equal to 411 bushels per acre. Several crops 350 to over 400 bushels per acre on single acres, usually one ton Mapes Potato per acre, wheat, Timothy, clover and corn follow, making a rotation of some five years. The fertilizer is used mainly on the "money" crop, potatoes.

The grower of the eighteen acre piece of potatoes, yield 305 bushels per acre, used of the Mapes Manures the past season, 1902:

Mapes Potato Manure	200 tons
Mapes Cabbage Manure	100 tons
Mapes Fruit and Vine Manure for strawberries	55 tons
Mapes Vegetable Manure for string beans	25 tons

Another grower used the past season:

For asparagus, 165 acres	250 tons
For potatoes	87 tons
For cabbage	17 tons

Shipped, 1901, of cabbage, from seven acres, over 3,500 barrels, with 1,000 barrels left uncut.

Branch, 242 State Street  
HARTFORD, CONN.

**THE MAPES FORMULA AND PERUVIAN GUANO CO.**

143 LIBERTY STREET  
NEW YORK.

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H. A. Keith, Sixteen Acres.  
J. W. Watson, Moore's Corners.  
W. F. Fillmore, Three Rivers.  
Homer Bush, Westfield.  
G. G. Walker, Williamstown.  
Leominster Hardware Co., Leominster.

L. C. Hall, Lowell.  
O. C. McCray, Monson.  
W. A. Moore, Millington.  
J. W. Watson, Moore's Corners.  
C. D. Holbrook Company, Palmer.  
Howard & Morrow, Pittsfield.  
C. F. Paige & Co., Athol.  
F. E. Mole, Adams.

W. A. Dunham, Ashley Falls.  
E. S. Ellis, East Longmeadow.  
J. A. Brewer, Great Barrington.  
C. F. Cole, Huntington.  
E. A. Cowee, Hudson.  
Sunderland Union and Fertilizer Co., South  
Deerfield, Sunderland, Whately and North  
Hartfield.

### The Horse.

#### How a Horse Can Talk.

The conversational ability of a horse formed part of the testimony adduced in court on the trial of a suit of veterinary surgeon Frank Roberge to recover \$100,000 from the estate of Robert Bonner, says the New York Sun. Roberge managed Mr. Bonner's horses for years, and he says that Mr. Bonner agreed to leave him, as compensation, a bequest of \$100,000. No such legacy was in the will. "A horse," said the vet on the stand, "must be thoroughly understood by any one who attempts to treat it. You must know it well, talk with it and understand its language." "Do you mean to say that a horse can talk?" he was asked. "Why, certainly he can, in his way. If a horse knows you are going to treat him, he will hold out his leg or his foot, if the trouble lies there. Once he thinks you can do him good, he'll soon take means to let you know what his ailment is, if possible." "And does he talk to every one like that?" "Oh, no, only to those he knows and who know him." "Well, will he talk that way to a horse-shoer?" "Not at all. A horse-shoer can not tell what ails a horse." "But the shoeing of a horse is most important, is it not?" "Of course. But it takes a skilled veterinary surgeon to prescribe shoes for a horse, just as an oculist glasses. You can improve the speed and gait of a trotting horse from ten to twenty seconds by properly shoeing him. I examined and treated the great Deater, for instance, and I found him weak behind. I supervised the making of his hind shoes and improved his condition greatly."

There is a good deal of significance in the recent purchase by Thomas W. Lawson of the show-ring champions, Puritania and



#### Warranted to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendon, Founder, Wind Puffs, and all lameness from Sprain, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Bone Thorns, etc., it is invaluable. Every bottle of Gombault's Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

Dainty Daffo, for breeding purposes and his reasons therefor, told in a letter to the American Horse Breeder:

Is it not a significant straw pointing to the security of good material when one is compelled to withdraw such finished product for brood-mare purposes? I am so in need of brood mares that I keep my people going constantly from Boston to California and Maine to Tennessee, through the private breeding farms and all of the public sales, and yet, while I stood ready to pay any reasonable price for anything that would measure to our standard at the sale just closed in New York, there were but four we cared to bid on, and those we bought. I really think the Breeder can do no better service for breeders generally than to keep constantly digging into their ears the fact that the country is fairly pining for first-class horses, American trotting bred, and that the pining cannot be satisfied at any price; that is, there is a market at very profitable prices for all the good trotting horses that can be raised, but be sure in your digging to bear down on the fact that it is good trotting horses that are in demand, for the more one studies the problem, the more one becomes impressed with the fact that it is the good trotting horse that is scarce—the beautiful individual, the physically perfect, well-bred, intelligently trained and broken trotting horse.

The skeleton of the great race horse and sire of race horses, Hanover, is soon to be placed by the side of that of the famous trotter and sire of trotters, George Wilkes in the museum of the Kentucky State College at Lexington. J. H. Wallace, the founder of the Trotting Stud Book, a few years ago volunteered to defray the expense of taking up the bones of Ryndy's Hambletonian and mounting them for the museum of natural history in New York city, says the Horseman, but those who controlled the property where Hambletonian was buried objected, and Mr. Wallace's plan to preserve the skeleton of the renowned trotting progenitor had to be abandoned.

John R. Gentry (2:04) has been leased from E. H. Harriman of New York by Campbell Brown of Spring Hill, Tenn., for a period of two years.

Carrots are a watery food and tend to make soft flesh and an overloaded digestive system. Their use for horses is as a relish and appetizer rather than as a substitute for more solid foods.

Horses by Baron Wilkes (2:18) are in popular demand. Baronade changed hands three times at the Fasig-Tipton sale. Mayor J. M. Johnson bid him off at \$1000, sold him shortly afterwards for \$2000, and the purchaser who paid \$2000 sold him for \$3000.

**Cured Bad Fistula and Running Sore.**  
The Lawrence-Williams Co., Cleveland, O., Jan. 28, 1903.  
We used Gombault's Caustic Balsam on fistula and cured it in about four months. This fistula was very bad, on both sides of the shoulder; run at four or five places, and one side was terribly swollen and a network of pipes. We had used three other remedies and all failed. We also used it on a horse for running sore which was obstinate to other medicines. I cured the sore in two weeks.  
A bottle of Gombault's Caustic Balsam can always be found at our stable.

CHARLES RHODES, Kent, O.

### Bees and Honey.

Many beekeepers have a strong prejudice against the king bird, or as it is sometimes called, the "bee martin," from its having been noticed flying about the hives and often catching bees. We regret this, because, while not among the most common of our summer birds in New England, it is with us from the first of May until about the middle of September, the length of its stay and the time of its return varying according to the mildness of our season. It breeds here, and while apparently busy in catching insects on the wing at all seasons, it is the most so when there is a nest of young to be fed. At that time it is at work helping the farmer from early dawn until twilight, and if it occasionally catches a bee it also catches large numbers of insect pests. But we believe that its reputation has suffered unjustly under the charge of molesting bees. When these birds have been shot in or near the apiary, and even around the hives, an examination of the contents of the stomachs has shown seldom more than one or two bees to dozens of drones and scores of other insects. The worker bee is evidently too hotly spoiled for the ordinary diet of a king bird. But it is an especial enemy of the bee moth, and as such may often be of more service to the beekeeper than of possible injury. It is also an inveterate enemy of the crow, and when it finds one of the black thieves prowling about the nest of one of our small singing birds, nearly all of which are insect eaters, there is a quick call for its mate, and alone, or in pairs, this small but swift fighter will attack the crow and drive him a mile away from the spot where it was looking for young birds or eggs to satisfy its appetite. Nor does it hesitate to attack the hawk or eagle in the same way, and if not able to kill the larger adversary, the swiftness of its flight and its impetuous attack, with its calls for assistance to others of its kind, are sure to bring it off the victor.

There is so little that can be done for the bees at this season of the year, and doing nothing to or for them is so much better than too much interference with them, that we feel almost tempted to drop this column until the weather is such that the hives may be safely opened, the colonies examined, the feeding begun and new queens given, if either of these are needed. But with bees as with all other branches of agriculture, the winter as a leisure time furnishes opportunity for reading, studying and planning for the future, as many feel that they cannot do when there is more active work to be done. Let us then take time to look at some of the points in beekeeping that are least well understood.

Even among experts there is a difference of opinion as to the best size and shape of the hive to use. While the eight-frame Langstroth hive is the most popular, there are those who claim that a ten or twelve-frame, or even a double hive of sixteen frames, is better. Possibly they are correct under certain conditions. In California and the middle Western States, where the fruit orchards of hundreds of acres are as frequent as those of ten acres are here; where there are great fields of white clover, alfalfa, buckwheat and beans; where the trees of bass-wood, almost unknown in Massachusetts, form no small part of their shade or forest trees, and where even

the weeds are sweet clover and catnip or other nectar producing plants, it may be very desirable to have colonies of double size, with storage room in proportion to receive the honey flow while it lasts. But in the Eastern States that lack much of this abundance of honey-producing plants, we think the eight-frame hive is large enough, with supers of the same size, whether working for comb or extracted honey. This makes hives and supers when well filled as many care to handle, and to double the size would be to debar women and old men from the work of caring for the bees. Seldom will a colony here gather honey enough to fill two supers with their surplus in a favorable season, and provide stores for their winter supply.

Speaking of the large honey flows in the West and the Pacific States, reminds us that we saw while ago a letter from California in Gleanings, in which the writer said he had just answered an inquirer who wanted to know if there was a chance for more apiaries there, by writing him that on a road nearby twelve miles long there were over 1200 colonies of bees. Think of that! We do not know of a road five times twelve miles long in New England where one could find 1200 colonies, and perhaps not in ten times twelve miles in a direct road. We do not think there is any section here where so many bees could find enough to live on, to say nothing of storing surplus honey, but we think many sections could well supply a much larger number of colonies than they have. This is especially true of those places where there are large orchards or fields of small fruits. And if to this were added a little more care in sowing and promoting by the use of land plaster the growth of white clover in our pastures, by occasional sowing of small fields of buckwheat, and the possible lengthening of the bees' tongues by breeding from queens from colonies that are known to work in clover, there might be a large increase in the feeding capacity for bees in our fields.

The white clover is a valuable addition to the pastures for dairy stock or for sheep; buckwheat, thrown, stalks and all, into the yards or scratching sheds for the hens to work over is among the best and cheapest poultry foods that can be grown upon the farm if given in moderate amount, as the scratching it over to get out the grain gives the hen exercise as well as food. The common annual sunflower also supplies a large amount of nectar for the bees and food for poultry if the English sparrows can be kept from them until the seeds ripen. Many of our ornamental shrubs and the annual flowers in our gardens, our beans and peas and our weeds furnish nectar in greater or less amounts, and we think ten acres not in forest would carry a colony of bees, and as they are known to fly five miles, an area five miles square should supply two thousand colonies.

#### Quality in Maple Syrets.

Over \$1,000,000 is received by maple-sugar makers in Vermont every year. In spite of this fact, the stock is badly marketed and falls short of its possibilities. The wholesale trade of the country will not handle the best qualities after the opening lot or first run because the retail trade will not take it. The retailers state they can make more money on an inferior product. When the question of quality is thoroughly

understood there will be a revolution and a greater demand for first-class products. Much of the trouble arising from the inferiority of the second run or the sugar that was made the last of the season is that not enough pains is taken to keep the utensils thoroughly cleaned.

Syrup should be put up in small quantities, thereby keeping it fresh, while in large quantities it deteriorates. There should be uniform quality and this can be attained by co-operation among producers. In May there is always a big demand for maple products, because it is fresh. There is no reason why this demand should not be kept up throughout the year if the quality can be maintained. The quality can be maintained if the manufacturers will co-operate.

Randolph, Vt.

#### Root Systems of Forest Trees.

Hickory produces a strong, persistent tap root, and these species persist on account of these tap roots seeking crevices in rocks and penetrating the soil deeply, so that they can flourish in poor, rocky soils. On the other hand, oaks do not have such a persistent tap root, but soon develop secondary roots, and on this account oaks in general require a more moist soil than hickories.

The tap root of the beech develops strongly for a time, but in the course of a year a broad system of lateral roots is developed, the tap root being checked in its further growth. Similar root systems are found in the maple and red ash, and these trees require a rich soil for their best growth. The sugar maple develops lateral roots quite early, and in general trees which develop strong lateral root systems in their early stages are not adapted to growth on sterile soils. Attention is called to the fact that in desert regions all the shrubby plants develop long tap roots.

J. W. TOURNEY.

#### Clod Crusher.

Planks lapped over like shingles on a roof are nailed crosswise over a strong frame 5x6 feet. It is drawn over the field by chain and whiffletree like a plain drag, and does more thorough work, mashing the lumps and working out dirt from the plowed soil.—W. C. Lewis, Steuben County, N. Y.

#### Jottings by Dairymen.

Most of the present pure breeds are the result of crossing. The best breeds of today will now and then produce mongrel type.—John E. Gifford, Worcester County, Mass.

If farmers wish to win dairy prizes, they must look out and get the last drop of milk from the cow.—W. Elliott Morse, Worcester County, Mass.

Some farmers question as to whether it is cheaper to buy cattle or to raise them. It is my experience it is more satisfactory in the end to raise them. If a farmer breeds his own cattle, he is apt to select the particular stock which is adapted to his purpose, and to breed with definite end in mind. Good care and cleanliness are absolutely necessary in raising high-bred cattle.—C. D. Richardson, Franklin County, Mass.

I find it does not pay to raise even pure-bred calves, unless they are of registered stock and have a pedigree that will make

them sell for more than the common stock. It would pay farmers in the districts where land is cheaper, but for us who are near the cities pure-bred stock or heavy milking cows are the only lines which it pays to keep.—Charles H. Ellsworth, Worcester County.

#### Action of Wood Ashes.

Ashes differ from lime in that they carry some plant food, soluble potash, from ten to twelve per cent, insoluble 15 per cent. Much lime as much potash as hard, beech has ten. There is a difference in the same kind of wood grown in different places. Canadian birch has but 8 per cent. potash, while that in Maine contains twelve. Cedar in Maine also has a larger per cent. than that grown in Canada.

Orono, Me. PROF. C. D. WOODS.

A piece of misfortune to New England commerce is the recent new outbreak of the hoof and mouth disease in New Hampshire. Its appearance in a part of the State where its presence had not been suspected is disquieting, since the event shows that the disease is not confined quite within its supposed limits. Fortunately only one carload was shipped in the case of the infected cattle exposed to Boston, and prompt measures were taken to stop danger from that source. It is hoped that the outbreak is confined within very narrow limits, but the occurrence will necessarily postpone the resumption of cattle trade between the States, and further delay the opening of the New England ports to the export cattle business.

#### Fertilizer Information.

The Bradley Fertilizer Works, Boston, Mass., are the leading authorities in the proper fertilizer to use in a given soil for a given crop. If you will write to them they will gladly send you full information as to what is best to use, and incidentally tell you why Bradley Fertilizers are the best in the world over. No other fertilizer equals Bradley's in sale, and certainly it is a pretty safe criterion of the money-making ability of Bradley Fertilizers. For various brands are for sale in most every locality, and farmers can depend upon them, as they are fertilizers of known quality, and will produce crops that will secure the highest prices.

#### Cured a Horse Sprain of Two Years Standing, and Worked the Horse Night and Day.

OTWAY, O., Jan. 10, 1903.  
I used your Gombault's Caustic Balsam upon a bone sprain of two years standing. It has entirely stopped all lameness, and we are working the horse in a lumber wagon every day. I used it last June and July, and worked the horse at farm work through the winter of 1901-2.  
C. T. McGOWAN.